TWO PAGE SUMMARY
VENTURE CAPITAL PITCH

2020

BRENT J. ZORICH MA BSID

ENTREPRENEUR AND PRINCIPAL TECHNICAL ARTIST PORTFOLIO SUMMARY

WWW.BRENTZORICH.COM

RESUME

DREAMWORKS
OUTREACH PROGRAM

LUCASFILM LTD
- BEST PRACTICES REVIEW COMMITTEE -
- EXECUTIVE TRAINEE -

BZP PRO
- COFOUNDER -
- SIGGRAPH & GDC BOOTHS -

ADOBE
ADOBE PRERELEASE TEAM FOR PHOTOSHOP ON THE IPAD PRO 2

EA SPORTS
LEAD RIGGING CENTRAL FOOTBALL

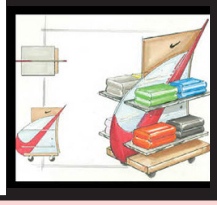
2K
BASKETBALL RIGGING

SONY
RIGGING PROTOTYPING

DISNEY
RIGGING PROTOTYPING

ARCHITECTURE FIRMS RANKED #1 AND #2 GLOBALLY

ACADEMICS

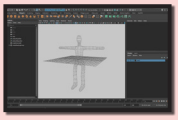


- DESIGN DEPT RANKED TOP 10 NATIONALLY
- UNDERGRAD DESIGN STUDENT BODY PRESIDENT
- ACCAD GRAD DEPT FOUNDED CGI IN 1960'S
- UNDERGRAD DESIGN THESIS: NIKE RETAIL DESIGN
- MASTERS THESIS: AUTORIGGING DINOSAURS IN PYTHON

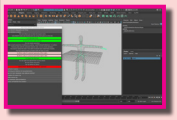
SMART SKINNER RIGGING PIPELINE SOFTWARE:

- WROTE ENTIRE TECHNOLOGY BY MYSELF IN MEL AND PYTHON
- CUSTOMIZABLE UPON REQUEST: FEATURED AT SIGGRAPH AND GDC
- ADVISED BY ILM COFOUNDER AFFILIATE TO NOT SELL BELOW $20 MILLION
- 3 ACQUISITION REVIEWS WITH 3 SEPARATE FORTUNE 100 COMPANIES
- RAISED INVESTMENT MONEY FROM BANKING ALUM OF HARVARD AND YALE
- FEATURED ON THE COVER OF A WORLDWIDE MAGAZINE
- TECH BURNED TO WORLDWIDE MAGAZINE'S INCLUDED ACCOMPANYING DVD
- 250 UNIVERSITIES ON 6 CONTINENTS RECEIVED PRODUCT

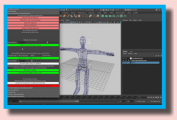
1. START WITH YOUR MODEL



2. GENERATE AND ALIGN SKELETON WITH GUI

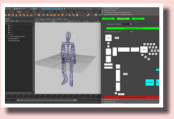


3. ATTACH MODEL TO SKELETON AND PICK THE NUMBER OF SKIN INFLUENCES WITH GUI



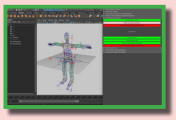
4. REFERENCE IN ZBRUSH, NEXT - GEN, OR MOBILE PROXY WITH CORRECT SKIN WEIGHTS THAT ALIGNS WITH MODEL. TRANSFER WEIGHTS THEN UNREFERENCE. THIS HAPPENS ALL WITHIN GUI.

5. TEST SKIN WEIGHTING WITH GUI POSER LIBRARY

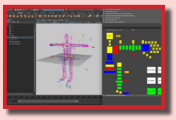


EITHER 6.

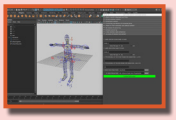
6. GENERATE ILM LEVEL CONTROL RIG INSTANTLY



7. KEYFRAME CONTROL RIG WITH GUI BUTTONS

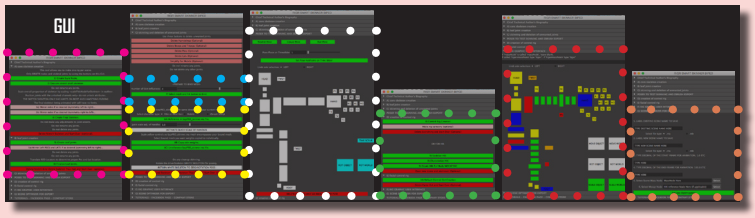


8. OPTIMIZE CHARACTER FOR IN GAME USE WITH GUI

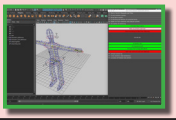


9. OVER 80 HOURS SAVED IN 15 MINUTES

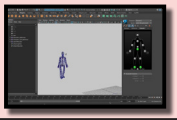
GUI



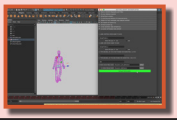
6. GENERATE MOCAP HIK RIG WITH GUI



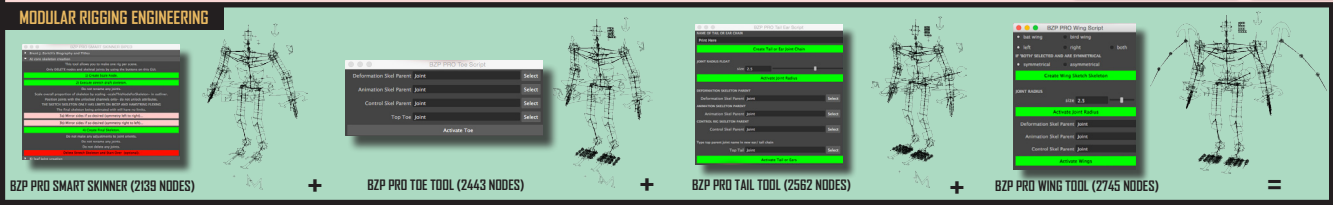
7. APPLY MOCAP DATA TO HIK RIG IN MAYA



8. OPTIMIZE CHARACTER FOR IN GAME USE WITH GUI



MODULAR RIGGING ENGINEERING



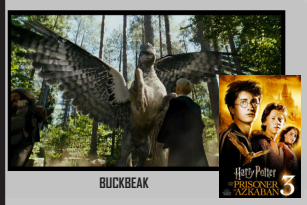
BZP PRO SMART SKINNER (2139 NODES) + BZP PRO TOE TOOL (2443 NODES) + BZP PRO TAIL TOOL (2562 NODES) + BZP PRO WING TOOL (2745 NODES) =

- 2745 NODES (TIMES 2 MINUTES PER NODE)
- 5490 MINUTES (90 HOURS)

COMPLETED IN 5 MINUTES

AT THE LEVEL OF ILM

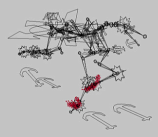
MODULAR RIGGING ENGINEERING CASE STUDY: 90 HOURS OF WORK COMPLETED IN 5 MINUTES



BUCKBEAK

BASE RIG

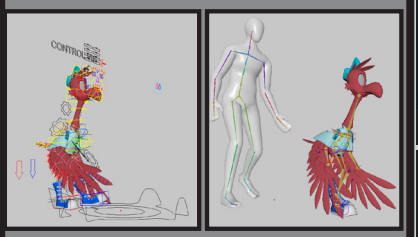
TOE MODULAR



TAIL MODULAR

WING MODULAR

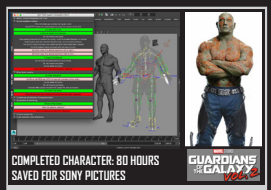
INVERSE HIK DESIGN FOR DISNEY PROTOTYPING



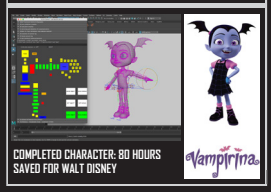
WALT DISNEY ANIMATION RIG SETUP

WALT DISNEY ANIMATION RIG SETUP BEING DRIVEN BY MY HIK

RIGGING PROTOTYPING



COMPLETED CHARACTER: 80 HOURS SAVED FOR SONY PICTURES

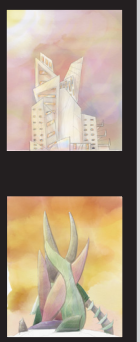


COMPLETED CHARACTER: 80 HOURS SAVED FOR WALT DISNEY

PREVIOUS MODELING EXPERIENCE

LEX LUTHOR WARDROBE

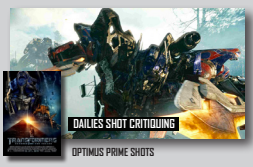
ADOBE SKETCHES



COLOR - MONTHLIES EDITING - DAILIES

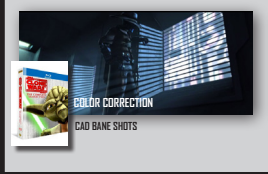
COLOR CORRECTION

OBI-WAN KENOBI SHOTS



DAILIES SHOT CRITIQUING

OPTIMUS PRIME SHOTS



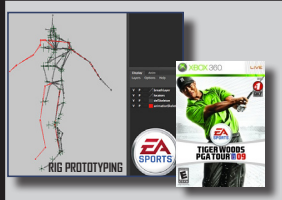
COLOR CORRECTION

CAD BANE SHOTS

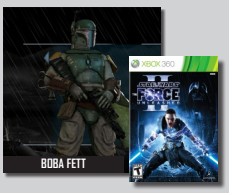
SHOT EDITING MONTHLIES

HARRY POTTER & DUMBLEDORE SHOTS

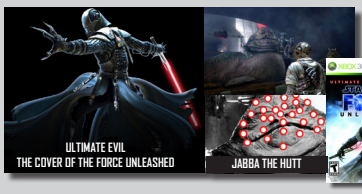
KEY PROFESSIONAL TECHNICAL DIRECTION



RIG PROTOTYPING



BOBA FETT



ULTIMATE EVIL
THE COVER OF THE FORCE UNLEASHED

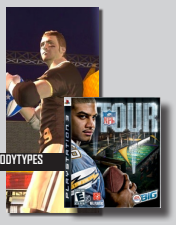
JABBA THE HUTT

ALL BODYTYPES

R AND D

RIGGING
(SPIELBERG)

BOBA FETT



ALL BODYTYPES

DRAGON RIGGING

ALL BODYTYPES

FILM GAME CONVERGENCE WORK COMBINING JANGO FETT WITH AHSOKA TANO ON THE XBOX SHOWN TO GEORGE LUCAS

ALL BODYTYPES

MADDEN NFL MILESTONE ACHIEVEMENT

FIXED NON ACCURATE ARM PROPORTIONS:

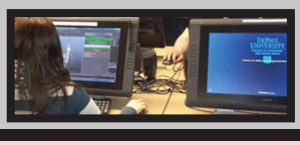
ENTIRE 10K ANIMATION LIBRARY RETARGETED TO MY RIG SETUP

NON ACCURATE

ACCURATE

MY TECHNOLOGY IN THE CLASSROOM
(250 UNIVERSITIES ON 6 CONTINENTS RECEIVED PRODUCT)

NOTE: SOPHOMORES IN COLLEGE ARE ABLE TO RIG CHARACTERS AT THE LEVEL OF ILM DUE TO MY TECHNOLOGY.



BZP PRO

ENDORSEMENT FROM THE SIGGRAPH CHAIR REFERRING TO MY TECH AS "MINDBLOWING"

PRINCIPAL TECHNICAL ART FILM GAME CONVERGENCE

- SMART SKINNER SOFTWARE CONTROL RIG TECHNICAL INFLUENCES
- 80 HOURS OF LABOR COMPLETED IN 20 SECONDS (14K LINES OF CODE)
- MATCH HIGHLIGHTED COMPANY TO CIRCLED BODY PART

MY TECHNOLOGY FEATURED @ MY BOOTHS @ SIGGRAPH & GDC

LUCASFILM Ltd

BI-MONTHLY BEST PRACTICES REVIEW COMMITTEE SELECTED BY FORMER CTO OF PETER JACKSON'S WETA DIGITAL

ILM BLOCK PARTY JANGO FETT

2K SPORTS

LUCASFILM ANIMATION

CHARACTERS EXPLORED AT LUCAS ANIMATION

LUCASARTS

EA GAMES

EA SPORTS

TITLES EXPLORED AS EA GLOBAL RIGGING ATTENDEE

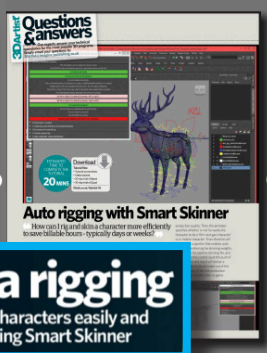
THREE WORLDWIDE MAGAZINES

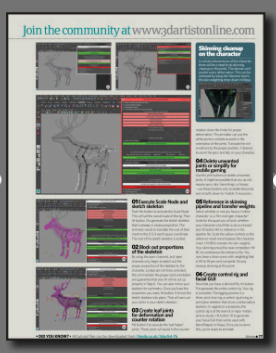
BIOGRAPHY FEATURED IN A WORLDWIDE MAGAZINE

There are few people in the 3D industry who can claim to have worked on bestselling EA games titles one year and hung out at Skywalker Ranch with Lucasfilm the next, but Brent Zorich is a man who can.

TECHNOLOGY I'VE WRITTEN INCLUDED ON WORLDWIDE MAGAZINE DISC

Created by one of the premiere riggers in the videogame and film industry, Brent Zorich, BZP Pro's Smart Skinner promises to rig and skin biped and quadruped characters in less than one hour.





TECHNOLOGY I'VE WRITTEN FEATURED ON THE COVER OF WORLDWIDE MAGAZINE

Brent J. Zorich

Brent is a clever chap, having written his own Smart Skinner for Maya. On p76 he reveals how using the Smart Skinner for auto-rigging can save you hours of time.

Maya rigging
Set up your characters easily and efficiently using Smart Skinner

BONUS PAGES

INDUSTRIAL DESIGN
1998
BACHELOR OF SCIENCE

THESIS: AUTORIGGING
DINOSAURS IN PYTHON
2011
MASTERS DEGREE

1997
PRODUCT DESIGN &
PITCH TO REEBOK CEO

1998
BRAND & ARCHITECTURE
INDUSTRIAL DES THESIS

ARCHITECTURE FIRM
RANKED #2
WORLDWIDE
REPUBLIC OF CHINA
1998-1999
ARCHITECTURE

ARCHITECTURE FIRM
RANKED #1
WORLDWIDE
1999-2001
ARCHITECTURE

ARCHITECTURE FIRM
RANKED #1
WORLDWIDE
1999-2001
ARCHITECTURE

ARCHITECTURE FIRM
RANKED #1
WORLDWIDE
1999-2001
ARCHITECTURE

The Mystery Dinosaur
2003-2005
RIGGING

OUTREACH PROGRAM
20 WEEK TRAINING SESSION
WITH SUPERVISORS ON
SHREK, MADAGASCAR,
SHARK TALE, & FINDING
2005
PARTICIPANT

2005
RIGGING

2006
RIGGING

2006
RIGGING

2006
RIGGING

RIGGING GLOBAL
PRACTICES MEETINGS
BETWEEN
EAC - EA LONDON - EA ORLANDO
2007-2008
BI-MONTHLY ATTENDEE

REDESIGNED RIGGING SYSTEM
ON ELECTRONIC ARTS TOP TITLE,
CENTRAL FOOTBALL, TO BE
BIOMECHANICALLY CORRECT
2007-2008
RIGGING MILESTONE

2007
RIGGING PROTOTYPING

2007
LEAD RIGGING

2008
LEAD RIGGING

2007
RIGGING

2008
RIGGING PROTOTYPING

2008
LEAD RIGGING

2007
RIGGING

2008
LEAD RIGGING

RESEARCH AND
DEVELOPMENT
SHOWN TO
GEORGE LUCAS
2008
FILM GAME CONVERGENCE

CREATURE R & D
2008-2009
WEEKLY ATTENDEE

2008-2009
RESEARCHER

BEST PRACTICES
REVIEW COMMITTEE
(1 OF 10 MEMBERS)
SELECTED BY FORMER CTO
OF PETER JACKSON'S
WETA DIGITAL
2008-2009
BI-MONTHLY ATTENDEE

EXECUTIVE TRAINING
2008
RECIPIENT

2008-2009
LEAD RIGGING

2009
RIGGING R & D

2008
RIGGING R & D
▪ SPIELBERG PROJECT ▪

2008
COLOR CORRECTION

2008
SHOT EDITING MONTHLIES

2009
DAILIES SHOT CRITIQUING

"BLOCK PARTY I"
RIGGING SOFTWARE
2008-2009
QUALITY ASSURANCE

▪ GENERAL GRIEVOUS ▪
▪ ANAKIN SKYWALKER ▪
▪ AHSOKA TANO ▪
▪ JANGO FETT ▪
▪ KIT FISTO ▪
2008-2009
RIGGING EXPLORATION

THE FORCE UNLEASHED
▪ JABBA THE HUTT ▪
▪ BOBA FETT ▪
▪ ULTIMATE EVIL ▪
(THE COVER CHARACTER)
2008-2009
RIGGING MILESTONES

RIGGING
PROTOTYPING
2017
RIGGING

ACM SIGGRAPH
GDC
2011-CURRENT
CHIEF EXECUTIVE OFFICER
▪ LLC BOOTH OWNER ▪

ACQUISITION
3 ACQUISITION ATTEMPTS
(1 OF THE COMPANIES WORTH
OVER 120 BILLION)
2011-CURRENT
CHIEF EXECUTIVE OFFICER

RIGGING SOFTWARE
▪ MOTION CAPTURE ▪
▪ FBX SCENE OPTIMIZER ▪
▪ POSE SPACE LIBRARY ▪
▪ PIPELINE & WORKFLOW ▪
▪ MODULAR RIGGING ▪
2011-CURRENT
CHIEF TECH AUTHOR

PENETRATION
250 UNIVERSITIES ON 6
CONTINENTS RECEIVED
PRODUCT
2011-CURRENT
CHIEF EXECUTIVE OFFICER

rev1ventures
HARVARD BUSINESS SCHOOL ANGELS
2011-CURRENT
CHIEF EXECUTIVE OFFICER
▪ MENTORSHIP RECIPIENT ▪

FINANCES
ADVISED TO NOT SELL
LLC BELOW 20 MILLION DOLLARS
RAISED MONEY FROM BANKING
ALUM OF HARVARD AND YALE
2011-CURRENT
CHIEF EXECUTIVE OFFICER

SONY PICTURES
240 HOURS OF ILM LEVEL
RIGGING COMPLETED IN
70 MINUTES
2017
RIGGING PROTOTYPE

MY HIK SET APPLIED ON TOP
OF DISNEY FEATURE ANIMATION
SETUP
2019
RIGGING PROTOTYPING

2019
RIGGING PROTOTYPING

Adobe
2019-CURRENT
PRERELEASE TEAM

NCAA
LECTURED AT
OVER
40 UNIVERSITIES
UNIVERSITY OUTREACH

COVER STORY
3 WORLDWIDE MAGAZINES

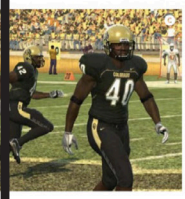
Maya
Motion Builder
MEL
Python
Photoshop
ZENO (ILM's software)
After Effects
Pixar's Renderman
HTML
C++
HIK
SOFTWARE SKILLS

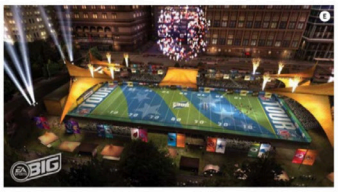
Industry insider

Brent Zorich

Character technical director, Lucasfilm

Each issue, 3D Artist finds out how the top people in the 3D industry got their jobs and what you need to know to get a foot in the door





About the insider

Job Character technical director/lead rigger
Education Master's of Fine Art at ACCAD at The Ohio State University
Company website www.lucasfilm.com
Personal website www.brentzorich.com
Biography Prior to immersing myself in the animation industry, I had worked for the top two architectural firms in the world. I pride myself on trying to be on a team that does the best work, no matter what project. I push technology as far as I can on whatever team I am affiliated with

There are few people in the 3D industry who can claim to have worked on bestselling EA games titles one year and hung out at Skywalker Ranch with Lucasfilm the next, but Brent Zorich is a man who can. Zorich was part of a steering committee meeting for Lucasfilm on film/game convergence. In addition, he was lead rigger on *The Force Unleashed: Ultimate Sith Edition*. On this title, he was working in the LucasArts division, looking at pipeline and storage optimisation and lead rigging on such characters as Jabba the Hutt and Boba Fett. Zorich was also dealing with convergence on all divisions from Lucasfilm to LucasArts, Lucasfilm Animation, Industrial Light & Magic and Lucasfilm Animation Singapore.

3D Artist: *What did this role of working on convergence mean in practice?*
Brent Zorich: As a part of the senior staff, I wrote proposals to help set the direction for Lucasfilm Ltd as a company. In Singapore, not only was I part of research and development prior to my promotion and relocation to the home office in San Francisco, I also worked on colour correction and compositing for *Star Wars: The Clone Wars*.

3DA: *How did you get this job?*
BZ: I applied online and was hired after Lucasfilm Animation Singapore saw the great work I did on EA Sports' football franchise.

3DA: *What kind of course did you do at university, or training did you do?*
BZ: At ACCAD at the Ohio State University, I did extensive research on the following topics: VRML; procedural animation; Pixar's RenderMan; motion capture. I also researched Wayfinding in real-time simulation (the subject analysed and improved upon was the game *Spider-Man The Movie*).

First of all, the Wayfinding tool was created out of VRML and theories worked on with an eminent scholar. I also studied the enhancement of realism in computer animation through the incorporation of biomechanics and fatigue (the subject analysed was *Shrek*). Next, I looked at rigging of prehistoric animals with my project-based thesis *Mystery Dinosaur* work. Finally, I looked at creatures evolving based on the ecosystem around them. Classes were also taken in digital still-life lighting and theatre lighting.

3DA: *For today's generation of students, what is the kind of educational grounding they should be looking to undertake to get a first job as a character animator, or is the entry level a less specific role?*
BZ: This is the way that I do it. I have a television next to my monitor. I watch *Harry Potter and the Prisoner of Azkaban* (the Buckbeak scene). If I am embarrassed to look at what is on my monitor then I'm not done, plain and simple. I am my own toughest critic and I have zero tolerance.

3DA: *In your role as associate technical artist or lead rigger at EA Sports, what kind of work did that entail?*

BZ: I needed a complete understanding of physiology of humans built for strength and speed. Because I was an athletic trainer who trained football players, it came to me naturally. I know how a football player flexes, I know how they run and sprint and I know how they get prepared for collision. Often, because I have a football player's body, I would go into the washroom at EA where there was a mirror, take off my shirt and flex both my traps and my arms to see the proper deformation. This is how I got into character and what made it so easy is that the character I was getting into was myself!

3DA: *Is there much of a culture or professional working practice difference between working for someone like EA and a company like Lucasfilm?*
BZ: You are who your team is. Lucasfilm, as a company, is a natural fit for me. We both have zero tolerance when it comes to the quality of our work. We push the absolute limitation of technology in every way, shape and form. Because we are not on yearly titles, we have the ability to push back a launch date to guarantee that we are doing our best to break new ground.

3DA: *What software packages and tools have you used for rigging and animation?*
BZ: I use Maya, the proprietary software to Industrial Light & Magic, and After Effects and HyperCam for documentation.

3DA: *Do you think there is a shortage of skilled digital artists doing animation and did you find it difficult getting into the industry?*

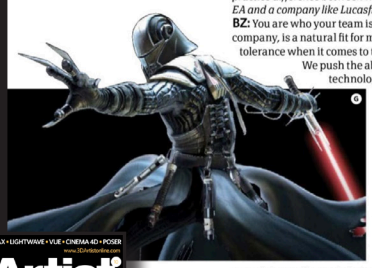
BZ: My best advice to any student is try to do an internship in a studio. Do not rush to get out of school; stay in and develop your craft. Finally, do the Buckbeak test as I mentioned above.

3DA: *What are the key skills required to work as a character animator or character rigger?*
BZ: Observation, patience and the goal to push technology. Everything you do, imagine you have to present it to George Lucas. Then you will work harder and will expect the absolute best from yourself and your team.

3DA: *If there was one feature missing from current software apps that you would like to see implemented to help with any aspect of CG animation, what would it be?*
BZ: I saw a demo from a company where you can actually draw arcs of motion on a Wacom tablet and the object will have an animation path.

3DA: *Professionally, what's the most satisfying project you've worked on and why?*
BZ: Seeing my name at the end credits of *Star Wars: The Force Unleashed, Ultimate Sith Edition* makes me incredibly proud. I saw the first *Star Wars* film when I was three in 1977. It motivated my whole career. To see my name in a *Star Wars* product gave me a sense of satisfaction.

3DA: *What would be your dream project to work on?*
BZ: One that continues to push film/game convergence on every level. The ultimate goal for me would be to have an engine that supports a controlled character and the user cannot distinguish between real-time and render.



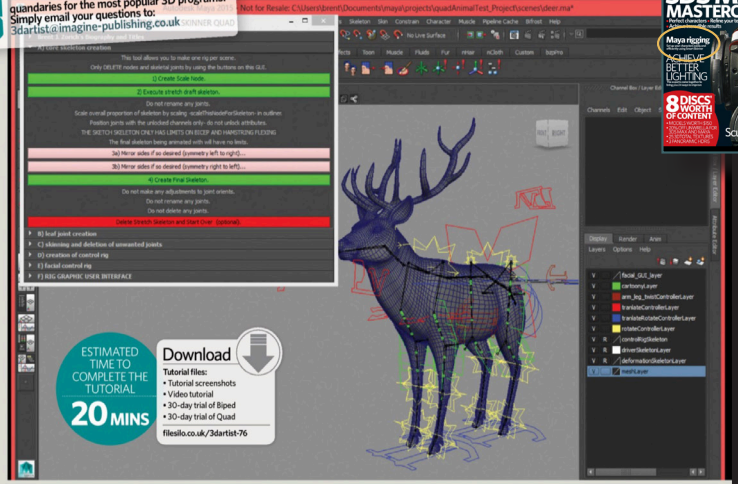
Portfolio highlights

Zorich has worked on a host of videogames over the years. Feast on these...

2008-9 *Star Wars: The Force Unleashed, Ultimate Sith Edition*
2008-9 *Indiana Jones and the Staff of Kings*
2008 *Star Wars: The Clone Wars*
2008 *EA Sports MMA*
2007-8 *NFL Tour*
2007-8 *NFL Head Coach 09*
2007-8 *NCAA Football 09*
2007-8 *Madden NFL 09*
2007 *Tiger Woods PGA Tour 09*
2007 *Madden NFL 08*
2007 *NCAA Football 08*
2007 *College Hoops 2K8*
2007 *NBA 2K8*
2006 *College Hoops 2K7*
2005 *Superman Returns: The Videogame*
2003-5 *The Mystery Dinosaur* for The Discovery Channel

A Character rigging on SW Force Unleashed
B Brent at Lucasfilm Animation
C NCAA college football from EA
D Tiger Woods PGA Tour 09
E Character work on NFL Tour
F Indianna Jones and the Staff of Kings
G Artwork from SW: TFU Ultimate Sith edition
H College Hoops 2K7
I The Ultimate Edition in full

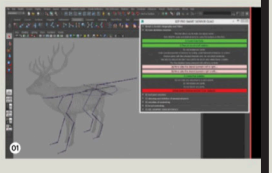
Our experts answer your technical quandaries for the most popular 3D programs. Simply email your questions to: 3dartist@imagine-publishing.co.uk

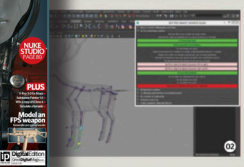


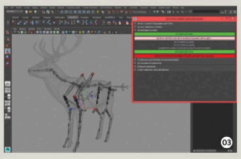
Auto rigging with Smart Skinner

"How can I rig and skin a character more efficiently to save billable hours - typically days or weeks?"

This tutorial is a breakdown of how the Smart Skinner is used in the production environment to save days, if not weeks, on the rigging and skinning process of a character. This step-by-step process goes over the basics of the software and will rig and skin a character of a deer in a matter of minutes. When I worked in production for the biggest companies on the planet, it would not be uncommon that from a billable standpoint, a development director might give me two weeks to start, execute, and complete a rigged character. This caused headaches in the production setting as often I was repeating the same task on different proportions without an effective way of cutting down hours. At Lucasfilm, I was looking through the assets of the main characters such as Ahsoka, Jango Fett and General Grievous extracting their key attributes and incorporating them into a super rig that could be benchmarked for the company. At EA Sports in the late 2000s I designed the rigging system used for Central Football for titles such as *Madden NFL* and *NCAA*. This Smart Skinner software I have written is a culmination of techniques from these top companies incorporated into a tool that is affordable and easy to use. The character will be completed through a process of firstly executing a sketch skeleton to obtain proper proportion. Then, the character will be blocked out within the mesh to ensure the joint positions are in the correct spot. The Smart Skinner will create the leaf helper twist joints to assist with the proper deformation required to make the rig production quality. Then, the animator specifies whether or not he wants the character to be a 'film next-gen character' or a 'mobile character'. From there he will reference in a pipeline that enables auto skinning, transferring the skinning weights, unreference the pipeline skinning file, and making an entire control rig at the push of a button. The end result will deliver a character able to be animated out of the box that is top-of-the-line production quality ready for either film or game.

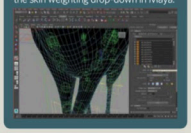


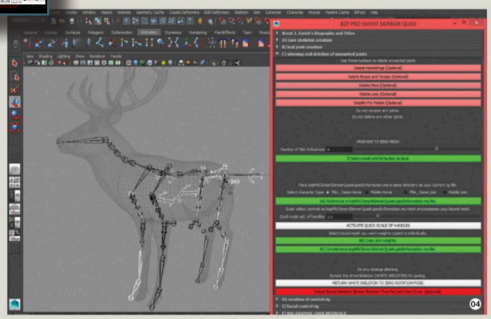




Skinning cleanup on the character

In certain intersections of the character, there will be a need to do skinning cleanup on the joints. The skinner can't predict every deformation. This can be achieved by using the Hammer tool in the skin weighting drop-down in Maya.

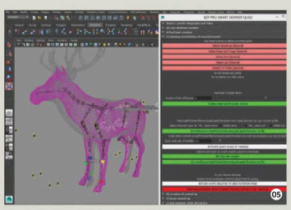




rotation down the limbs for proper deformation. The animator can use the white anchor controls to assist in the orientation of the joints. Translate the red crosshairs to the proper position, if desired, to orient the pecs and lats on your character.

04 Delete unwanted joints or simplify for mobile gaming

Use the pink buttons to delete unwanted joints. It might be possible that you do not require pecs, lats, hamstrings, or biceps – use these buttons only to delete the joints and simplify down to 'mobile' if necessary.



01 Execute Scale Node and sketch skeleton

Push the button to activate the Scale Node. This will set the overall scale of the rig. Then hit button 2 to generate the sketch skeleton that is already in a base proportion. The animator needs to translate the root of their mesh to the 0 0 0 world space coordinate. The root of the sketch skeleton is locked.

02 Block out proportions of the skeleton

By using the open channels, and open channels only, begin to sketch out the proper proportion of the skeleton to the character. Locked are not to be unlocked, this will maintain the proper joint orientation and guarantee that your IK will be set up properly in Step 6. You can also mirror your skeleton for symmetry. Once you have the proportion you want, hit button 4 to lock the sketch skeleton into place. That will zero out your joints in your sketch skeleton.

03 Create leaf joints for deformation and counter rotation

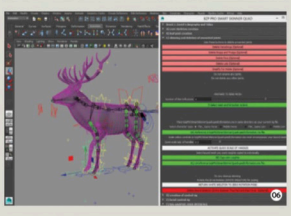
Hit button 5 to execute the 'leaf helper' joints. These joints will assist in the counter

05 Reference in skinning pipeline and transfer weights

Select whether or not you have a 'mobile character' or a 'film next-gen character" (note for the quad you will pick whether your character is built like a cat or a horse) and hit button 8A to reference in the pipeline file. Scale the yellow controls so the reference mesh encompasses the character mesh. Hit 8B to transfer the skin weights. Your skinning should be near completed. Hit 8C to unreference the reference file. You now have a clean scene with weighting that is 90 to 95 per cent complete. Do any cleanup skinning at this point.

06 Create control rig and facial GUI

Now that you have a skinned file, hit button 9 to generate the entire control rig. Your rig is complete. The rigging process is a three-joint chain rig: a control rig driving an animation skeleton that drives a deformation skeleton. In regards to complexity, the control rig is at the level of a major motion picture studio. Hit button 10 to generate your facial GUI that can be used with blendShapes in Maya. Once you've done this, you're ready to animate!



• DID YOU KNOW? • All tutorial files can be downloaded from: filesilo.co.uk/3dartist-76

Born on December 6th, 1974, after Brent J. Zorich graduated St. Charles Preparatory High School in 1993, he went into the industrial design department, ranked in the top five nationally, at The Ohio State University, was a member of Sigma Alpha Epsilon fraternity, and graduated as the undergraduate design school student body president with a thesis project rebranding Nike retail. In undergrad, Brent worked in store sales and visual merchandising for Tommy Hilfiger. In 1997, as a young entrepreneur, Brent mocked up a prototype industrial design concept of a Reebok Golf Sandal incorporating the brand of Greg "The Shark" Norman, and presented the concept to the office of the CEO of Reebok, Paul Fireman, for production. While a student in the design department, Brent had a summer design internship doing illustration work for a nationally ranked luxury SUV design facility named Custom Coach in Columbus, Ohio. There he worked on transportation design for their client, John McConnell, owner of the NHL Columbus Blue Jackets (note: other clients of Custom Coach included John Madden's "The Madden Cruiser"; Deion Sanders; President George H. Bush; and Minister Louis Farrakhan- The Leader of the "Nation of Islam"- who Brent met in person while on site). Afterwards, Brent completed an internship doing corporate interior space design at Continental Office Furniture (Herman Miller) in Columbus, Ohio. Once graduated from The Ohio State University, Brent worked at the architectural firm ranked number 2 in the world, NBBJ, as a post graduate architectural intern with the client being the "Republic of China". He was fortunate enough to be in several "crit" sessions while on The Beijing Hotel for The Republic of China with the Chairman of Global NBBJ, Friedl Bohm. Brent then moved to Atlanta, Georgia, to work for Gensler, the architectural firm ranked number 1 in the world as an interior architect, focusing on retail design for Gensler Fortune 500 clientele. These projects included both design documentation and construction documentation for one of Gensler's premiere clients: Volkswagen. Brent was lucky enough while working in the studio to attend a firm practices session and meet and greet with M. Arthur Gensler, considered by many to be the most powerful architect on the planet. The key lesson he learned from Mr. Gensler was to be humble in business dealings. Arrogance is the quickest way to lose a client.

He left Atlanta and went back to the Ohio State ACCAD program, where computer graphics were invented in the 1960's by Professor Emeritus Charles Csuri, to complete a masters in computer graphics/ technical direction. Note: key alum of this program had made the liquid alloy T-1000 in "Terminator 2: Judgement Day" starring Arnold Schwarzenegger; the velociraptors in the original 1993 "Jurassic Park" directed by Steven Spielberg; the founder of FOX Blue Sky Studios who created "Ice Age", "Horton Hears a Who", and "The Peanuts Movie"; and the Chief Technology Officer of PIXAR Animation Studios. Of the 50,000 plus students at The Ohio State University, only approximately ten to fifteen students had security access to this ACCAD graduate program building. Graduate admittance into this program is determined by portfolio, and professional and academic achievement.

During Brent's tenure at ACCAD, the facility received a research grant through Brave New Pictures to develop a nationally televised one hour documentary on a newly discovered nano tyrannous dinosaur in Hell Creek, Montana. This one hour documentary, entitled "The Mystery Dinosaur", aired prime time on both The Discovery Channel and The Science Channel. Brent was key in both modeling and rigging on this feature. As apart of this grant, ACCAD was in full collaboration with The Burpee Museum in Rockford, Illinois, who were having weekly discussions with this ACCAD research group on physiology, anatomy, and biomechanics. Paleontologists from this museum had worked with Dr. Robert Bakker who was the Steven Spielberg paleontologist consultant on Jurassic Park. ACCAD alum of this project went on to work at studios such as PIXAR, Walt Disney Feature Animation, EA Sports, Sony Pictures Imageworks, Dreamworks Animation, and Activision; with Brent ending up at Lucasfilm. The ACCAD producer on this feature was the former department head of computer animation at The Ringling College of Art and Design. Note, Brent's graduate thesis was entitled "Rigging A Prehistoric Animal" where he automated the rigging process in python.

Finally in graduate school, he was in a DreamWorks SKG Outreach program being trained by Dreamworks supervisors in animation; and was also fortunate enough to be in a lecture session with Jeffrey Katzenberg. During the lecture, Mr. Katzenberg was asked what the most key role was in the production pipeline; his response was "the rigger." Brent altered his CGI focus from modeling to rigging upon hearing that. This outreach program duration was 20 weeks, with supervisors in the industry who were currently working at DreamWorks Animation bringing such previous film experience to the ACCAD students as "Spider-Man 2", "Finding Nemo", "Shrek", "Shark Tale", and "Madagascar". Brent was also asked to give a lecture, while as a student, to the College of the Arts at Ohio State student body at the Wexner Center for the Arts. There were a total of seven guest lecture supervisors from the program that went into extensive CGI techniques with each of the students on an individual basis. This gave Brent access to a professional pipeline in early development in his computer animation career that is still applicable to the types of work he is doing today. In these sessions, one of the people that he shadowed was the DreamWorks Animation SKG Rigging Supervisor that went over advanced rigging techniques, and first introduced Brent into the power of programming and scripting for automation. This particular supervisor, was the lead on Finding Nemo from PIXAR and who first taught Brent about "proxy rigging."

Afterwards, Brent went on to work in San Francisco, California, on Take 2 Interactive "NBA 2K", working with the data of Shaquille O'Neal (TTWO market cap September '18: 15.2 billion) (note: they are also the makers of the top selling IP on the planet, Grand Theft Auto); and then on to Orlando, Florida, for EA SPORTS, where he worked on "Superman Returns", "Tiger Woods PGA Tour", and as a rigging technical director lead on "Madden NFL" (which is the top grossing video game in North America) (EA market cap September '18: 34.8 billion). While on Madden NFL, Brent was key in breaking new ground in the character setup aspect of the digital football players by working with the Central Football leads in changing the player bodies to be anatomically correct. Previously, the digital players in Madden NFL and NCAA Football had elongated arms to exaggerate a more Disney style art direction. Brent played a key role in converting the players of the top selling title in North America to bio mechanical accuracy. Lastly on Madden NFL, Brent was key in adding 15 to 20 additional leaf joints to the animation rig to add hyper realism in regards to bicep and hamstring flexing. At EA SPORTS, Brent was in bi-monthly global meetings with EA VANCOUVER, EA ORLANDO, and EA LONDON, analyzing and recommending improvement on rigging assets of characters for ELECTRONIC ARTS top titles including "FIFA", "NHL", "NBA Live", "Facebreaker", and "EA Harry Potter." In these meetings, best practices with the ELECTRONIC ARTS BODYSHOP, global technology, global work flow, and global tools were explored.

Brent left the United States and moved to Singapore to become senior/ executive trainee/ best practices review committee of Lucasfilm, working with the former Chief Technology Officer of Peter Jackson's Weta Digital in Wellington, New Zealand (The Lord of the Rings). There at Lucasfilm, he worked on "Star Wars" intellectual property (showing work directly to George Lucas), "Indiana Jones IP" for Steven Spielberg, was brought in to work on monthlies prep on "Harry Potter and the Half Blood Prince" (sequence includes Harry Potter and Professor Dumbledore), dailies shot critiquing on "Transformers Revenge of the Fallen" at Industrial Light and Magic research and development meetings (shots include Devastator and Optimus Prime), and color correction work on "Star Wars The Clone Wars" with shots including Cad Bane and Obi-Wan Kenobi, while also frequenting the Skywalker Ranch for research in Marin County in San Francisco, California. The Best Practices Review Committee was a hand selected panel by the former Chief Technology Officer from Weta Digital consisting of approximately ten people. Brent had a strong vocal presence in these meetings where the goal of each was to set the digital standard in modeling, rigging, and rendering, for LucasArts, Lucasfilm Animation, and Industrial Light & Magic. While in Singapore, before being promoted and relocated to the home office in San Francisco, Brent was in a small research group of about six people focusing on film game convergence. In that group, the graphics researchers optimized an environment that was inhabited by Master Yoda from "Star Wars: The Clone Wars", as well as Anakin Skywalker's Jedi Apprentice, Ahsoka Tano, from that same series. Brent combined the underlying engineering rigging aspects of the young Jedi with Jango Fett from ILM's Oscar Nominated "Star Wars Episode 2: Attack of the Clones." The team used those assets to create a playable level in the Unreal Engine on the XBOX 360, which was shown to Mr. Lucas in Singapore. Before this film game convergence research began, Brent was doing additional exploration in the Autodesk Maya files of such Star Wars characters as General Grievous, Kit Fisto, Anakin Skywalker, Padme Amidala, Jar Jar Binks, and a few others. He was analyzing their character technical direction and looking for ways to improve the control set ups to build out universally within Lucasfilm. In San Francisco, executive training within Lucasfilm Corporate was administered to Brent by the consultancy Engaged Leadership LLC. One of his personal highlights in addition to creating the character technical direction on Jabba the Hutt and Boba Fett was setting up the character code named Ultimate Evil, who was the cover character of Star Wars The Force Unleashed Ultimate Sith Edition. For both spinal research of Jabba as well as biomechanics of Boba he worked with the library of the Skywalker Ranch frequenting the facility in Marin County. Brent's initial goal was to become a creative studio executive at Lucasfilm. Worldwide published magazine, 3D ARTIST MAGAZINE, did a two page worldwide feature on Brent at Lucasfilm. Note: In 2009, Brent was a workplace stalking victim that led to temporary medical injury causing him to leave Lucasfilm with the perpetrators reported to the FBI.

Brent parted ways with California and Singapore and cofounded an animation software company in Columbus, Ohio, named BZP Pro with investors in the banking industry that are alum of Harvard and Yale from Chicago, Illinois. BZP Pro is engaged with accelerator REVI VENTURES. The LLC had booth representation at both The Game Developers Conference (GDC) and Siggraph. The animation rigging software he wrote, called The Smart Skinner, had a university penetration of 250 universities on 6 continents (due to BZP Pro's partnership program), made the cover of a world wide magazine, and was under acquisition review several times; the last time working with a Harvard investment banker formerly from Goldman Sachs. Brent was advised to not sell the formula below 20 million dollars by an affiliate of one of the founders of ILM. With the investment banker, they were in acquisition negotiations with a Silicon Valley headquartered company worth over 100 billion dollars. Note, (Mark Zuckerberg) FACEBOOK LLC, according to reports, was at approximately 85 schools pre "Series A" investment; BZP Pro outpenetrated FACEBOOK in university acceptance in the pre "Series A" investment stage with a "freemium" business model similar to FACEBOOK LLC: "free-to-play" for collegiate users with sales through "add-ons".

The initial marketing strategy was that universities would receive the "freemium" software for three years to be fully integrated into their curriculum. Then, upon the fourth year of the universities requesting an upgrade, they would be charged an annual subscription thereafter; with students in the classroom being able to purchase additional individual licenses. The Smart Skinner automates 80 hours of advanced character technical direction into about 20 minutes of labor with minimal cleanup at the technical level of the companies Brent was previously employed, including Industrial Light and Magic's Oscar winning Block Party Rigging Software. Upon purchase, The Smart Skinner perpetual license is active for the current year of Autodesk Maya. When Autodesk Maya upgrades annually, the customer would need to repurchase a new Smart Skinner license. BZP Pro froze the business operation when they were under the last acquisition review with the Silicon Valley company worth over 100 billion dollars and is currently in the process of relaunching. NOTE: Brent took an extended leave of absence to take care of his terminally ill mother who passed from pancreatic cancer, as well as make his father's house ADA compliant who is wheelchair bound with multiple sclerosis. Afterwards, while also updating the Smart Skinner pipeline and adding a pose library, Brent completed rigging prototyping work for both Sony Pictures as well as Walt Disney Feature Animation; working with his partner studio in Los Angeles. Most recently, Brent went under NDA with ADOBE, INC (Market Cap November '19: 142 billion) where, as an illustrator, was beta testing their design ecosystem (Photoshop) for APPLE's IPAD PRO 2 (APPLE Market Cap November '19: 1.17 trillion).

While co-operating BZP Pro with his partners, Brent will be able to continue to work on visual effects and video game blockbuster titles [see consulting rates], and is hopeful to pursue additional advanced degrees in Business and Engineering as relates to Entertainment Technology. He is also in the beginning stages of conceptualizing more potential venture funded IP. Brent looks forward to lengthening his technical direction and entrepreneurial portfolio. For fun, Brent enjoys going to four star steakhouse bars to watch ESPN; lecturing at universities around the country on the topic of video game and visual effects development; and at Starbucks, daily, sketching Frank Gehry influenced deconstructive buildings on his iPad Pro 2 (with APPLE Pencil), or Samsung Galaxy Note 10 Plus (with the Samsung S-Pen), using the ADOBE Design Ecosystem software. He is a fan of Ohio State Football, as well as The Chicago Bears, and affiliations of Michael Jordan. His favorite movies are Spider-Man 2, The Lord of the Rings, Harry Potter and the Prisoner of Azkaban, The Fantasia Series, and Star Wars Episode III: Revenge of the Sith. His favorite video games are Lord of the RIngs: The Two Towers, Harry Potter and the Prisoner of Azkaban, and Battlefront II, all by Electronic Arts for the XBOX; Spider-Man, and God of War for the PlayStation 4; and The Batman Arkham Series by Warner Bros Interactive. His favorite music acts are Pink Floyd, Seal, U2, Frank Sinatra, and Metallica. Brent's eventual goal would to be a Chief Visual Officer at a major animation, visual effects, or video game studio similar to someone like Doug Chiang or John Knoll, with Mark Pincus potential: who he had the pleasure of having a brainstorming session. He looks to the creative visual guidance of Peter Jackson and JK Rowling work for inspiration. Brent hopes to write a memoir one day on his own reflections and professional practices stemming from portfolio experiences as well as collegiate lecturing.

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Salaries > Principal Technical Artist

Principal Technical Artist Salaries

Data based on fewer than 20 profiles

How much does a Principal Technical Artist make?

A Principal Technical Artist earns an average of $223,863, ranging from $172,064 at the 25th percentile to $263,560 at the 75th percentile, with top earners (the top 10%) earning more than $319,313. Compensation is derived from fewer than 20 profiles, including base salary, equity and bonus.

Salaries for Principal Technical Artists

Last updated: May 2nd, 2018.

SECTION NAVIGATION

COMPENSATION TALENT JOBS

Talent

What skills do you need as a(n) Principal Technical Artist?

Do you meet the bar? Principal Technical Artists tend to know the following skills. Check out individual skills to view our evaluations and insights, along with similar skills and a number of skill building learning opportunities to expand your own potential.

Maya (100%) Video Games (90%) Game Design (80%) mel (80%) Gameplay (80%) Show more

What degrees do Principal Technical Artists hold?

60% of applicants have a Bachelor's Degree. 42% have no degree.

Bachelor's Degree (60%)

Undisclosed (42%)

How long have Principal Technical Artists worked?

40% employees have 10 to 20 years of experience. 20% have 20 or more years of experience. 30% have 5 to 10 years of experience. 10% have 2 to 5 years of experience.