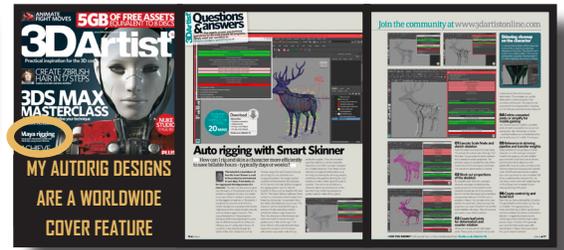
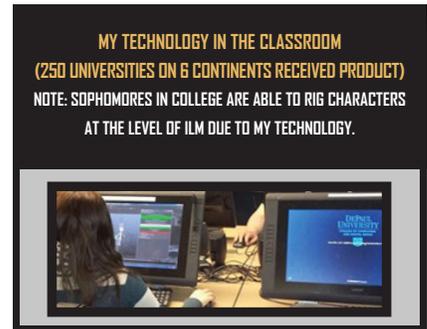


COFOUNDED AND CEO'D A LLC THAT HAS BEEN FEATURED IN THREE WORLDWIDE MAGAZINES: COVER STORY



ENTREPRENEURIAL AND PRINCIPAL TECHNICAL ARTIST SKILLSET I CAN ADD TO YOUR PROJECT:

- COLLEGIATE GUEST LECTURING (CURRENTLY OVER 40 UNIVERSITIES)
- RIGGING PIPELINE AND WORKFLOW
- MEL AND PYTHON ENGINEERING TOOL DEVELOPMENT
- CAN DESIGN ILM LEVEL, AND WORLDWIDE MAGAZINE COVER LEVEL, AUTORIGGING TOOLS VALUED @ 20 MILLION BY ILM AFFILIATES
- MOTION CAPTURE AND MODULAR ENGINEERING RIGGING SETUP
- VENTURE CAPITAL TECHNOLOGY PITCHING :::: MULTIPLE FORTUNE 100 ACQUISITION PRESENTATIONS EXPERIENCE
- STARTUP LEVEL CHIEF CREATIVE OFFICER TASKS
- BUSINESS STRATEGY DESIGN: CAN DESIGN A "FREEMIUM" BUSINESS MODEL WHERE THE TECHNOLOGY I AUTHOR PENETRATES UNIVERSITIES AT A RATE FASTER THAN FACEBOOK LLC PRE "SERIES A" INVESTMENT
- CAN ASSIST WITH THE DESIGN, BRANDING, ROLL OUT, MERCHANDISING, AND STRATEGY OF A POTENTIAL EMPLOYER'S CONSUMER RETAIL ENVIRONMENTS HAVING DONE STORE PLANNING AT THE TOP DESIGN FIRM IN THE WORLD: GENSLER (IE. IF TASKED ON A LIGHTER RIGGING WORK WEEK AT DISNEY, HOURS AVAILABLE, I COULD ASSIST ON THE DESIGN OF A DISNEY RETAIL STORE)



**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 LLC (AUTODESK AUTH DEV)

CO-FOUNDER/ CHIEF EXECUTIVE OFFICER/ PRINCIPAL TECHNICAL ARTIST

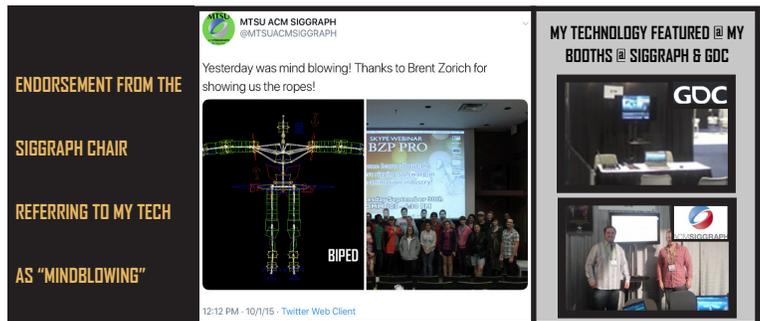
2011-Current

WALT DISNEY FEATURE ANIMATION RIGGING PROTOTYPING  
 "SMART SKINNER" RIGGING PIPELINE SOFTWARE  
 SONY PICTURES ENTERTAINMENT RIGGING PROTOTYPING

(incorporating motion capture HIK to Disney Feature Rigs for "proof of concept"- tested on Disney's "VAMPIRINA")  
 (workflow author from Art=> Skeleton=> Skinning=> ILM Level Control Rig/ Mocap=> In Game Optimized)  
 (David Bautista from "Guardians of the Galaxy VOL 2" and 240 hours of ILM level rigging completed in 70 minutes)

Entrepreneur Summary:

- WROTE ENTIRE TECHNOLOGY BY MYSELF IN MEL AND PYTHON
- FEATURED AT SIGGRAPH AND GDC IN MY OWN BOOTHS
- ADVISED BY ILM COFOUNDER AFFILIATE TO NOT SELL BELOW \$20 MILLION
- 4 ACQUISITION REVIEWS WITH 3 SEPARATE FORTUNE 500 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
- INTERVIEW, SCREEN, AND NEGOTIATE WITH VENTURE CAPITAL FIRMS FOR EQUITY INCLUDING THE FIRM OF KEVIN O'LEARY (ABC'S SHARK TANK)
- NOTE: MY LLC HAS BEEN UNDER ACQUISITION REVIEW FIVE TIMES WITH THREE SEPARATE FORTUNE 500 COMPANIES DUE TO TECHNOLOGY I WROTE ENTIRELY MYSELF AND BROKERED BY GOLDMAN SACHS ALUM FROM HARVARD.



**LUCASFILM, LTD.**

SENIOR TECHNICAL ARTIST (CORPORATE EXECUTIVE TRAINEE - BEST PRACTICES STEERING COMMITTEE)

2008-2009

"STAR WARS THE FORCE UNLEASHED ULTIMATE SITH EDITION"

(lead character technical construction and submitted concept artwork)

"INDIANA JONES AND THE STAFF OF KINGS"

(character technical construction and character deformation R & D)- **A Steven Spielberg Project**

"STAR WARS THE CLONE WARS: SEASON TWO"

(color correction &amp; compositing on two episodes featuring Cad Bane and Obi-Wan Kenobi)- shown at annual firm wide meeting

"TRANSFORMERS REVENGE OF THE FALLEN"

(shot approval in dailies at weekly Industrial Light &amp; Magic Creature R &amp; D meetings featuring Optimus Prime and Devastator)

"STAR WARS THE FORCE UNLEASHED II"

(initial kickoffs, shared assets, file management, character technical construction research and development)

"HARRY POTTER AND THE HALF BLOOD PRINCE"

(shot prep for monthlies approved by the head of ILM Singapore)

- **Key Achievement: Promoted, salary increased, and relocated from Singapore to San Francisco after only five months.**
- Invited by The Director of Animation Technology, former CTO of Peter Jackson's WETA Digital (Lord of the Rings), to be on the Steering Committee setting "Best Practices" for LucasArts, Lucasfilm Animation, and ILM.
- Invited to the prestigious Skywalker Ranch on numerous occasions to obtain extensive research that was incorporated into characters Boba Fett and Jabba the Hutt.
- Converged the Emmy Award winning film Ahsoka Tano with ILM's Oscar Nominated Jango Fett into an optimised character working in the Unreal Engine that was approved directly by Mr. George Lucas in Singapore.
- Character exploration, documentation, and benchmarking, of Star Wars IP rigging assets such as General Grievous, The Emperor, Ahsoka Tano, Kit Fisto, Lord Vader, and Anakin Skywalker, in Singapore.
- Invited into highly coveted Creature Research and Development meetings at Industrial Light & Magic after demonstrating technical ability to ILM Department Supervisor.
- Admitted into Lucasfilm Executive training via Engaged Leadership LLC after proving strong leadership qualities for the team.
- The President of LucasArts positively reviewed my executive proposal entitled Offensive Attack Strategy about attacking Lucasfilm opposition and passed it on to the Board of Directors.
- One of the characters completed with under my lead technical direction, Ultimate Evil, was chosen as the cover of Star Wars The Force Unleashed, a very prestigious honor.
- Documented and extracted key assets of ILM's rigging software, Block Party I, to do quality assurance against Autodesk Maya for multi divisional usage.

**EA SPORTS (ELECTRONIC ARTS)**

ASSOCIATE TECHNICAL ARTIST (LEAD RIGGER ON CENTRAL FOOTBALL)

2005, 2007-2008

"MADDEN NFL 08"

"NCAA FOOTBALL 08"

(shoulder pad research and development, football player skinning)

"EA SPORTS MMA"

"TIGER WOODS PGA 09"

(prototype rig development)

"NFL TOUR"

"NFL HEAD COACH 09"

(in charge of character technical construction for all characters in title)

"MADDEN NFL 09"

"NCAA FOOTBALL 09"

(in charge of character technical construction for all characters in title)

"SUPERMAN RETURNS"

(character technical construction of dragon villain character and modeling of Lex Luthor's wardrobe)

- **Key Achievement: Salary increased after only three months.**
- After proving technical abilities, invited into monthly global meetings assisting on rigging with EA SPORTS' "Global Rigging Bodyshop" (FIFA, NHL, Fight Night, included).
- Pitch to heads of Central Football about EA SPORTS working with NIKE to collaborate on biomechanics and motion capture after requested how to improve the team.
- Redesigned the football rigging system based on anatomical proportions as opposed to cartoony exaggeration that used the studio custom quaternion node and was implemented on all football titles going forward.
- 10,000 animations (entire football animation library) retargeted to my rigging setup's redesign on EA SPORTS top grossing multi billion dollar annual title: MADDEN NFL (Central Football).

**ZK SPORTS (TAKE 2 INTERACTIVE)**

CHARACTER TECHNICAL DIRECTOR

2006

"COLLEGE HOOPS 2K7"

(shoulder deformation tweaking, cheerleader character technical construction)

"COLLEGE HOOPS 2K8"

"NBA 2K8"

(character technical construction research and development- tested on data of Shaquille O'Neal)

**DREAMWORKS SKG OUTREACH PROGRAM**

PARTICIPANT VIA OHIO STATE Trained by a collective group from Shrek, Madagascar, Shark Tale, &amp; Spider-Man 2

2005

**BRAVE NEW PICTURES (THE DISCOVERY CHANNEL)**

CHARACTER TECHNICAL DIRECTOR/ ANIMATOR/ COMPOSITOR

2003-2005

"THE MYSTERY DINOSAUR"

(rigging, animating, and compositing of photoreal dinosaurs for national televised "Walking With Dinosaurs" piece.)

PRIOR WORKED AS AN INTERIOR ARCHITECT AT **GENSLER** (THE DESIGN FIRM RANKED #1 WORLDWIDE) AND **NBBJ** (THE DESIGN FIRM RANKED #2 WORLDWIDE)

1998-2001

KEY CLIENTELE:

VOLKSWAGEN (design dev &amp; construction doc)

LINCOLN MERCURY (design dev)

ADIDAS (store auditing)

THE REPUBLIC OF CHINA (drafting)

**SOFTWARE EXPERIENCE**

Maya (Master Level of experience), Motion Builder, MEL, Python, Photoshop, ZENO (ILM's software), After Effects, Final Cut, VRML, Pixar's Renderman, Slim, HTML, C++, HIK customization and automation for Motion Capture

**EDUCATION**

- **BSID:** Bachelor of Science Industrial Design at The Ohio State University: **1998** - Senior Thesis Client: **NIKE** - Product Invention and CEO Pitch: **REEBOK**
- **MA:** Masters of Arts at the Advanced Computing Center for the Arts and Design (ACCAD) at The Ohio State University: **2011**
- **Continuing Studies** Specializing in Linear Algebra and Engineering at Stanford University: **2020**

**THREE PAGE PORTFOLIO SUMMARY  
VENTURE CAPITAL PITCH**

**2020**

RESUME

**DREAMWORKS** OUTREACH PROGRAM

**LUCASFILM Ltd**  
 • BEST PRACTICES REVIEW COMMITTEE •  
 • EXECUTIVE TRAINEE •

**BZP PRO**  
 • COFOUNDER •  
 • SIGGRAPH & GDC BOOTHS •

**EA SPORTS** LEAD RIGGING CENTRAL FOOTBALL

**2K** BASKETBALL RIGGING

**SONY** RIGGING PROTOTYPING

**Disney** RIGGING PROTOTYPING

**Adobe** Apple

ADDED PRERELEASE TEAM FOR PHOTOSHOP ON THE IPAD PRO 2

**Genkler** **nbbj**

ARCHITECTURE FIRMS RANKED #1 AND #2 GLOBALLY

ACADEMICS

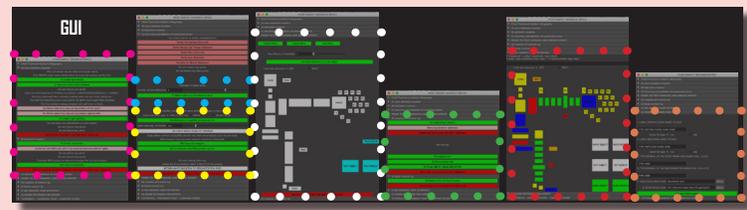
- DESIGN DEPT RANKED TOP 10 NATIONALLY
- UNDERGRAD DESIGN STUDENT BODY PRESIDENT
- ACCAD GRAD DEPT FOUNDED CGI IN 1980'S
- UNDERGRAD DESIGN THESIS: NIKE RETAIL DESIGN
- MASTERS THESIS: AUTORIGGING DINOSAURS IN PYTHON

**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

- START WITH YOUR MODEL
- GENERATE AND ALIGN SKELETON WITH GUI
- ATTACH MODEL TO SKELETON AND PICK THE NUMBER OF SKIN INFLUENCES WITH GUI
- REFERENCE IN ZBRUSH, NEXT-GEN OR MOBLE PROXY WITH CORRECT SKIN WEIGHTS THAT ALIGNS WITH MODEL. TRANSFER WEIGHTS THEN INFERRENCE. THIS HAPPENS ALL WITHIN GUI
- TEST SKIN WEIGHTING WITH GUI POSER LIBRARY
- GENERATE ILM LEVEL CONTROL RIG INSTANTLY
- KEYFRAME CONTROL RIG WITH GUI BUTTONS
- OPTIMIZE CHARACTER FOR IN GAME USE WITH GUI

EITHER 6. OVER 80 HOURS SAVED IN 15 MINUTES



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

**Disney** 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

Discovery CHANNEL

LEX LUTHOR WARDROBE

ADOBE SKETCHES

COLOR - MONTHLIES EDITING - DAILIES

COLOR CORRECTION

DBI-WAN KENDRI SHOTS

COLOR CORRECTION

CAD BANE SHOTS

DAILIES SHOT CRITIQUING

OPTIMUS PRIME SHOTS

SHOT EDITING MONTHLIES

HARRY POTTER & DUMBLEDORE SHOTS

KEY PROFESSIONAL TECHNICAL DIRECTION

RIG PROTOTYPING

BOBA FETT

ULTIMATE EVIL

JABBA THE HUTT

ALL BODYTYPES

MADDEN 09

R AND O

NBA 2K10

WII

WII

WII

BOBA FETT

ALL BODYTYPES

DRAGON RIGGING

ALL BODYTYPES

FILM GAME CONVERGENCE WORK COMBINING JANGO FETTS WITH AHSOKA TANG ON THE XBOX SHOWN TO GEORGE LUCAS

ALL BODYTYPES

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"

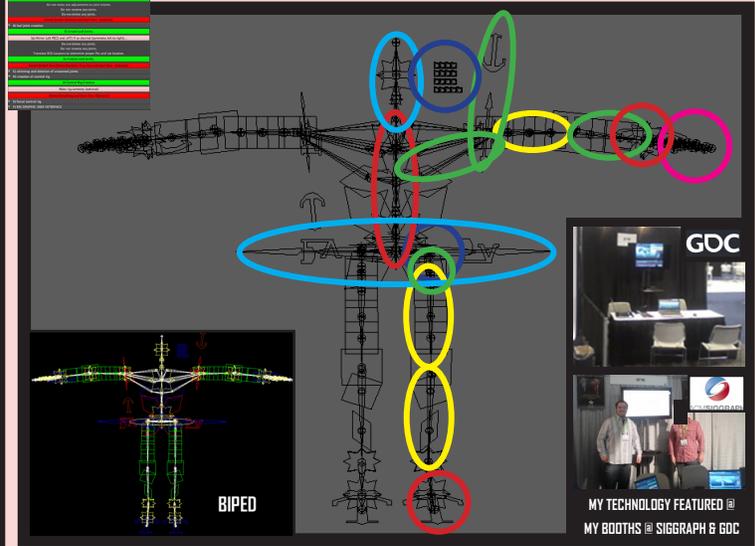
Yesterday was mind blowing! Thanks to Brent Zorich for showing us the ropes!

10:12 PM - 10/11/11 - Twitter Web Client

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



BIPED



MY TECHNOLOGY FEATURED @ MY BOOTHS @ SIGGRAPH & GDC



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



ILM BLOCK PARTY JANGO FETT



ZK SPORTS



LUCASFILM ANIMATION



CHARACTERS EXPLORED AT LUCASFILM ANIMATION



LUCASARTS



EA GAMES



EA SPORTS



TITLES EXPLORED AS EA GLOBAL RIGGING ATTENDEE

THREE WORLDWIDE MAGAZINES



BIOGRAPHY FEATURED IN A WORLDWIDE MAGAZINE

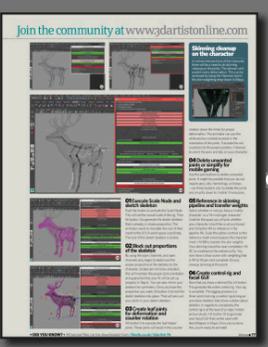
There are few people in the 3D industry who can claim to have worked on bestselling EA games titles one year and hung out at Skywalker Ranch with Lucasfilm the next, but Brent Zorich is a man who can.



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.

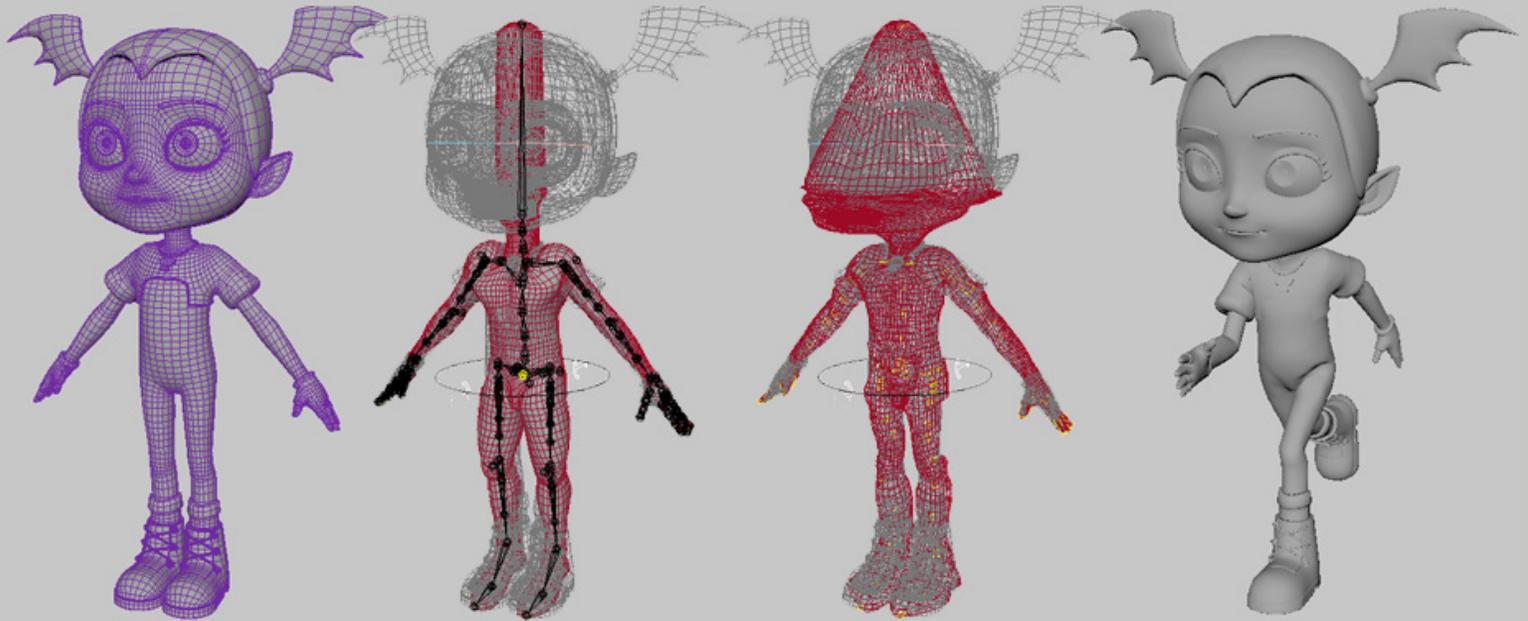


TECHNOLOGY I'VE WRITTEN FEATURED ON THE COVER OF WORLDWIDE MAGAZINE

**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

SKINNING AUTOMATION DESIGN ENGINEERING  
 - COMPLETE 95% OF SKINNING IN GUI WITH THIS METHODOLOGY  
 - TECHNIQUE THROUGH TECHNOLOGY FEATURED IN THREE WORLDWIDE MAGAZINES



1. START WITH YOUR MODEL

2. REFERENCE IN SMART SKINNER  
 PROXY WITH GUI

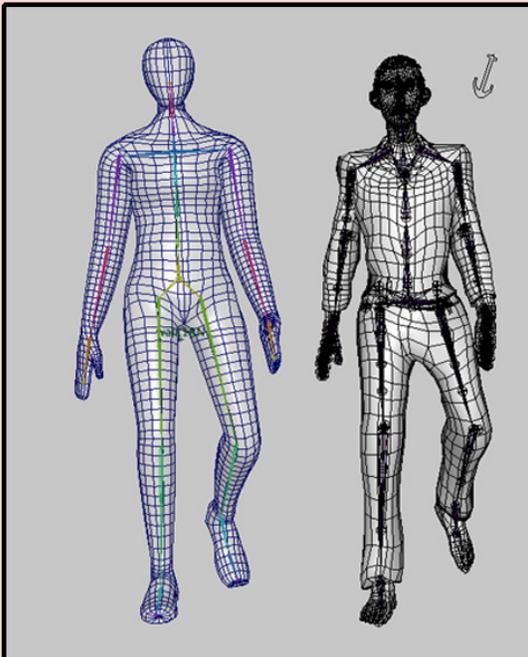
3. REPROPORTION SMART SKINNER PROXY  
 SO IT COMFORTABLY FITS AROUND MODEL:  
 TRANSFER SKIN WEIGHTS WITH GUI

4. COMPLETED CHARACTER:  
 AROUND 10 HOURS OF SKINNING  
 SAVED

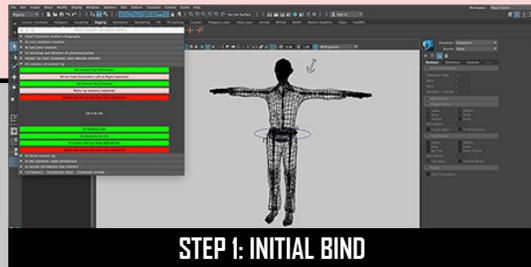


MOTION CAPTURE DESIGN ENGINEERING  
 - COMPLETE AUTODESK PROCESS WITHIN THE SMART SKINNER GUI ON SONY CHARACTER  
 - RIGS READY FROM MODEL TO MOCAP READY UNDER 20 MINUTES

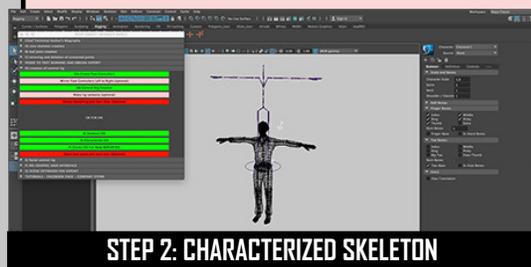
SONY



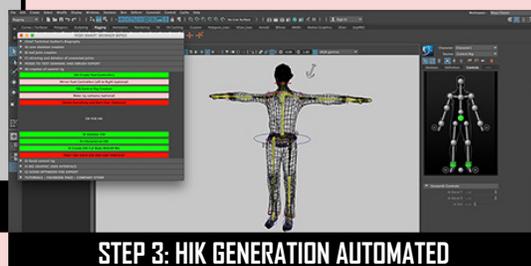
SIDE BY SIDE BETWEEN MOCAP AND SONY CHARACTER



STEP 1: INITIAL BIND



STEP 2: CHARACTERIZED SKELETON



STEP 3: HIK GENERATION AUTOMATED

# 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

LINCOLN  
MERCURY

1999-2001  
ARCHITECTURE



The Mystery Dinosaur

2003-2005  
RIGGING



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

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



TIGER WOODS  
PGA TOUR 09

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



INDUSTRIAL  
LIGHT & MAGIC

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

Engaged Leadership

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



INDUSTRIAL  
LIGHT & MAGIC

"BLOCK PARTY I"  
RIGGING SOFTWARE

2008-2009  
QUALITY ASSURANCE



GENERAL GRIEVOUS  
ANAKIN SKYWALKER  
AHSOKA TAND  
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



GUARDIANS  
OF THE GALAXY  
VOL. 2

RIGGING  
PROTOTYPING

2017  
RIGGING



ACV/SIGGRAPH  
GDC

2011-CURRENT  
CHIEF EXECUTIVE OFFICER  
LLC BOOTH OWNER



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



revVentures  
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 4M LEVEL  
RIGGING COMPLETED IN  
70 MINUTES

2017  
RIGGING PROTOTYPE



Disney

MY HIK SET APPLIED ON TOP  
OF DISNEY FEATURE ANIMATION  
SETUP

2019  
RIGGING PROTOTYPING



Disney  
Vampirina

2019  
RIGGING PROTOTYPING



Adobe  
Ps

2019-CURRENT  
PRERELEASE TEAM



2020  
CONTINUING STUDIES



LECTURED AT  
OVER  
40 UNIVERSITIES

UNIVERSITY OUTREACH



3 WORLDWIDE MAGAZINES

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

SOFTWARE SKILLS

workspace To advertise in workspace, please contact Cassie Gilbert on 01202 586421 or cassandra.gilbert@imgame-publishing.co.uk

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 Masters of Fine Art at ACCAD at The Ohio State University Company website www.lucasfilm.com Personal website www.brentzorch.com

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...

also worked on colour correction and compositing for Star Wars: The Clone Wars.

3DA: How did you get your 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...

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



Portfolio highlights

- 2006-9 Star Wars: The Force Unleashed, Ultimate Sith Edition
2006-9 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 09
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

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...

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



- Character rigging on SW Force Unleashed
Brent at Lucasfilm Animation
NCAA college football from EA

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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: I needed a complete understanding of physiology of humans built for strength and speed. Because I was an athletic trainer who trained football players...

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: 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.

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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.

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. 01 Execute Scale Node and sketch skeleton. 02 Block out proportions of the skeleton. 03 Create leaf joints for deformation and counter rotation. 04 Delete unwanted joints or simplify for mobile gaming. 05 Reference in skinning pipeline and transfer weights. 06 Create control rig and facial GUI.

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 Hilfinger. 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, 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 Battlefield 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 be 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.

SEARCH BY COMPANY, TITLE, AND/OR LOCATION

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

TOTAL COMPENSATION	
25TH PERCENTILE	\$172,064
AVERAGE	\$223,863
75TH PERCENTILE	\$263,560
TOP EARNERS	\$319,313

BREAK DOWN: AVERAGE	
BASE	\$223,863

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.

50%