INDUSTRY INSIGHT BLOGS

THE COMPLEXITIES OF A DA VINCI MIND :::::: THE THOUGHT PROCESS OF ARCHITECTURE APPLIED TO ENGINEERING:

When discussing the way my mind works, we must first discuss the way an architect thinks: generating multiple thoughts based off of one action. The brain, in my opinion, works like an intel processor. We, as humans, go throughout the day responding to different stimuli in various ways. If a person is walking down the street, and a child approaches them that is lost, the one action of recognizing the panicked look on the child's face might generate two thoughts in most people: 1, where is your mother, or 2, where is your father? For a very powerful architect, it is possible, due to the brain exercises we do, or have done, since university, 5 to 7 thoughts could be generated... just due to our training.

A complex design architect, such as myself, is trained to generate multiple thoughts based off of one action, in this case: composition vs volume. In a composition, on an X-Y plane, if a line is drawn between two vertices, most people that design that line, or just draw that line, only see a line on a plane or paper. To a powerful design architect, the "one" action of a line, will generate the following thoughts because that line will be apart of a floor plan. So, before the powerful design architects pen has completed the one action of connecting two vertices in a line, they are already thinking about the following: color, elevation, door, window, shadow, perspective, texture, trapezoid, adjacency. This is all based of the one action of drawing one line. So, from a brain exercise standpoint, one physical action is immediately generating 7 to 8 thought processes operating at the same time.

This type of thought process can be applied to other fields. Unfortunately, the life of an architect is that of a starving artist, the major money is in engineering. Engineers tend to problem solve on a linear path, writing code in steps and building blocks to solve problems. This was why writing The Smart Skinner Software was as easy for me to do as it was. The complexity of problem solving a rigging pipeline was tackled by the mind of an architect multi processing several solutions at once and converging them into one formula. Engineering Chief Visual Officer is the path I am headed, like Doug Chiang, John Knoll, Hideo Kojima, Mark Pincus, etc... and that is the path of a multi millionaire/ billionaire, most likely on the west coast of the United States; and as a world famous video game developer and tech entrepreneur.

About Gensler

Overview
Gensler is a global architecture, design, and planning firm with 49 locations across Asia, Europe, Australia, the Middle East, and the Americas. Founded in 1965, the firm serves more than 3,500 active clients in virtually every industry. Gensler designers strive to make the places people live, work, and play more inspiring, more resilient, and more impactful.

Recent Accolades
- *Architectural Record* 2020 Top 300, #1 Architecture Firm
- *Interior Design* 2021 Top 100 Giants, #1 Overall Firm
- *Building Design + Construction* 2020 Giants 400, #1 Architecture Firm
- *Building Design + Construction* 2020 World Architecture 100, #1 Overall Firm
- *ENR* 2020 Top 500 Design Firms, #1 Architecture Firm
- *ENR* 2020 Top 100 Green Buildings Design, #1 Architecture Firm
- *Glassdoor* "Best Places to Work 2020"
- *Forbes* "America's Best Employers for Diversity" in 2020

Revenues
Gensler's worldwide revenue for fiscal year 2020 was $1.55 billion.

www.gensler.com
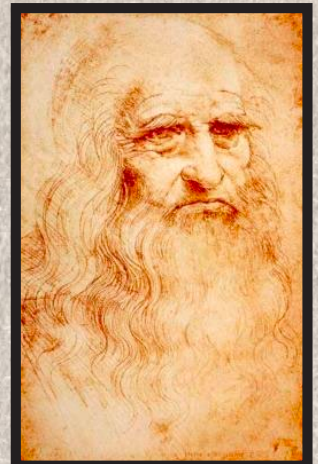
THE FUTURE … 1.6 BILLION? …

THINKING POSITIVELY ABOUT THE FUTURE…

1. I write animation tools and technology for video games and films.
2. My tools are based on Star Wars.
3. The tools I write are so similar to ILM's tools for Star Wars, where I worked, that supervisors who wrote the tools on the Star Wars prequels were wanting royalties.
4. My tools have been on the cover of world wide magazines.
5. I was in R and D meetings at ILM on writing tools for production.
6. I was on the best practices review committee at ILM as one of about ten to twelve members setting digital standards for Lucas Digital globally with the former CTO of Peter Jackson's Weta Digital.
7. 250 universities on 6 continents received a freemium version of my tools at a requested pace that out paced Mark Zuckerberg's Facebook LLC (6 months).
8. One of the most respected people in the computer graphics industry, the siggraph chair, referred to me and my tools publicly on twitter as "mind blowing."
9. When the Intercon Conference reviewed my resume and work (tools), and they are sponsored by Facebook and Amazon, they awarded me the title of "One of the top 100 people in technology worldwide."
10. The technology/tools in Star Wars are just as big as technology/tools on The Lord of The Rings. This technology takes Autodesk Maya assets and optimizes them to work in real time engines like Unity and Unreal.
11. The Lord of The Rings is directed by Peter Jackson.
12. Peter Jackson owns Weta Digital.
13. Peter Jackson sold the tools division of Weta Digital where he takes Autodesk Maya assets and exports into a real time engine like Unity or Unreal to Unity LLC for 1.6 billion dollars.
14. My tools do the same thing that Peter's do…. except they are Star Wars based.

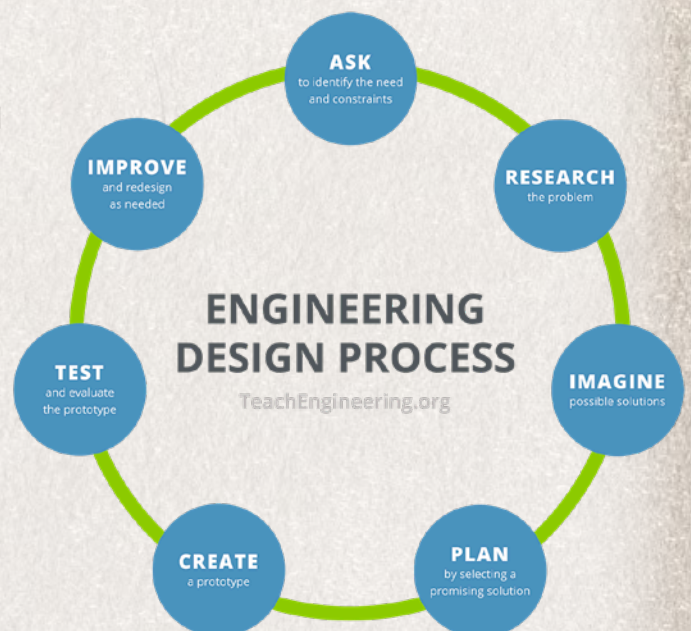The future is bright. Sincerely "Peter 'Air' Zuckerberg"

ARE YOU AN ARTIST, OR A DESIGN ENGINEER?

THE DIFFERENCES ...

PEOPLE OFTEN ASK THE QUESTION WHEN WORKING, ARE YOU MAKING AN ART PIECE, OR A DESIGN ENGINEERING PIECE. ARE YOU AN ARTIST, OR A DESIGNER. TO CLARIFY AND SUM UP... ARTISTS FEEL, DESIGN ENGINEERS SOLVE. AN ARTIST WILL PUT THEIR INNER SOUL, SPIRIT, AND SUBJECTIVITY, INTO A PIECE OF WORK; PUTTING THEMSELVES ON A CANVAS, A FILM, A GAME, OR A PIECE OF MUSIC OUT FOR THE PUBLIC TO INTERPRET, WITH THE HOPE THAT IT GENERATES REVENUE. A DESIGN ENGINEER, LIKE MYSELF, ANALYZES A SITUATION, AND THROUGH A SYSTEMATIC PROCESS, DEVELOPS A SERIES OF SCHEMATICS THAT ARE ULTIMATELY NARROWED DOWN TO SOLVE A PROBLEM. THERE IS NOTHING WRONG WITH EITHER PROFESSION, BUT THEY LOOK AT CREATIVITY DIFFERENTLY. THE ARTIST MIGHT MAKE PIECES THAT WOULD BE IN A MUSEUM, WHEREAS THE DESIGN ENGINEER WOULD FOCUS ON THE CONCEPTUALIZATION OF THE MUSEUM ITSELF TO SHOW OFF THOSE PIECES SO THEY MIGHT SELL. ILM IS MORE CENTRIC AROUND DESIGN ENGINEERING. THE CONCEPTS BEING GENERATED FOR GEORGE LUCAS AND SUCH FILM ARE TYPICALLY MORE DESIGN ILLUSTRATIONS IN A MULTIPLE LAYOUT FORM. MOST GAME STUDIOS TAKE THIS APPROACH ALSO. IN THE DRAWINGS THEMSELVES, THEY ARE SOLVING A PROBLEM FOR THAT PARTICULAR SHOT THAT MUST BE UNDERSTOOD BY THE AUDIENCE MEMBER IN APPROXIMATELY THREE SECONDS OF SCREEN TIME. THIS HAS A DIRECT INFLUENCE IN THE PROCESS OF CONCEPTUALIZATION. AN ARTIST TAKES THE APPROACH OF "THIS IS HOW I FEEL ABOUT A PARTICULAR PIECE EMOTIONALLY," WHEREAS THE DESIGN ENGINEER WILL SAY, "THIS IS HOW I WANT YOU, THE USER, TO FEEL ABOUT THIS PIECE, NON PERSONAL REFLECTION, AND I WILL USE METHODOLOGY BASED ON RESEARCH AND SCIENCE TO GENERATE THAT RESPONSE FROM YOU, MY USER."

PERSONALLY, THE TYPE OF DESIGN ENGINEERING THAT I DO, IN ADDITION TO VIDEO GAME CONCEPTUALIZATION THAT I SELL ON MY T SHIRTS, IS PROGRAMMING COMPUTER GRAPHICS TOOL SOFTWARE ARCHITECTURE TO AUTOMATE THE CHARACTER TECHNICAL DIRECTION RIGGING PROCESS ON VARIOUS XBOX, PLAYSTATION, LUCASFILM, ELECTRONIC ARTS, ETC. TITLES. IN THE SCHEMATIC PHASE OF THIS TYPE OF DESIGN, WORKFLOW, PROCESS, ANIMATION POSE ABILITY, AND PIPELINE EASE INTO A VIDEO GAME ENGINE ARE WHAT IS TYPICALLY DRAFTED UP.

ASK to identify the need and constraints

RESEARCH the problem

IMAGINE possible solutions

PLAN by selecting a promising solution

CREATE a prototype

TEST and evaluate the prototype

IMPROVE and redesign as needed

ENGINEERING DESIGN PROCESS
TeachEngineering.org

THE LOVE OF DESIGN AND ANIMATION ENGINEERING: CREATING IN YOUR MOST ELEMENTARY FORM

THOUGHTS ON INNOVATION, LAYOFFS, AND MENTAL BLOCK

The animation and design engineering industry can be challenging to be in due to the amount of layoffs in the profession. The money can be good, I pulled about just over 170k three years out of school at Lucasfilm, and I've gotten job specs for over 400k before for entertainment software manager/ software architect in the Bay Area. In fact, if you look online on YouTube, it is common that mid level engineers at google often pull 500k between salary, stock, and bonus. That being said, it can be relatively unstable to be in due to studio acquisitions and closures. If you ever experience the gloom of a layoff, which will happen to everyone at least once during their career most likely, remember your passions towards your industry and the fun you have creating. What I do to get focused, is watch the first four minutes, intro, to the movie "Hoosiers". In that scene, not only is the music incredible, it shows a younger generation of people, not glitzed and glammed, not with fancy cars, not with skyscrapers and penthouses, doing what they love to do… play basketball in small towns in Indiana. These are not boys playing for NIL, or for a future NBA contract where they will get women and alcohol. They are just playing because they love the game. The essence of what it means to have the mindset of a performer… or a swoosh. That mindset applies to me as well when thinking about the future of running a major video game organization. Often at times I think to myself how great it would be to travel to Europe, I've never been, and go to a cafe near Bilbao where Frank Gehry's museum is located (similar to the cafe at the end in the first Mission Impossible where Tom Cruise and Ving Rhames enjoy each other's company after a hard days work), sit in a cobblestone brook, get an espresso drink, pull out my iPad, put on a Rolling Stones classic like "She's a Rainbow", take out my Apple Pencil…. and just design something. It can be a new character, a piece of architecture in a game, code, a new rigging system, etc. But just drift away to the land of John Knoll and Jony Ive, listen to Mick, and let it flow. In creating, remember, as long as a piece of paper, a pen, and a cup of coffee, make you happy, you will have nothing to ever fear. Don't forget to simplify and create in your most elementary form. Things work themselves out. Just stay focused and never lose your imagination.
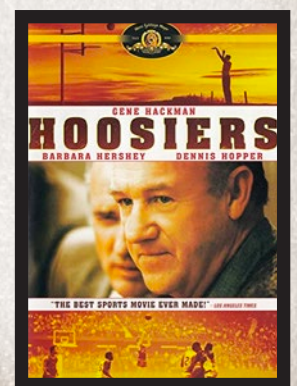
VIDEO GAME DESIGN EXPANSIVE TECHNOLOGY

THE KEY FIGURE IN THE FUTURE IS THE TOOLS DESIGNER

AS GAMES EXPAND THROUGH CONSOLE ITERATIONS AND EVOLVE FROM FOUR HOURS OF GAMEPLAY, TO EVENTUALLY FORTY HOURS OF GAMEPLAY, WHAT MUST BE ANALYZED IN THE CREATION PROCESS IS THE AMOUNT OF BILLABLE HOURS SPENT ON THE FORMATION OF ASSETS. VIDEO GAMES, AS THEY EXPAND INTO MORE COMPREHENSIVE STORY, GAMEPLAY, AND LEVEL OF DETAIL, ARE INCREASING IN QUALITY AT APPROXIMATELY 800 PERCENT PER GENERATION JUMP... ABOUT EVERY SEVEN YEARS. THE PROBLEM IS, THE BUDGETS FOR THE GAMES DO NOT ALLOT FOR EIGHT TIMES THE STAFF REQUIRED TO BUILD THEM, EVEN THOUGH CONSOLE GAMES INCREASE IN PRICE APPROXIMATELY TEN DOLLARS PER GAME PER ITERATION (PLAYSTATION 3 GAMES COSTING $50, PLAYSTATION 4 GAMES COSTING $60, AND PLAYSTATION 5 GAMES COSTING $70). THIS IS WHERE AUTOMATION AND ARTIFICIAL INTELLIGENCE NEED TO COME INTO PLAY TO MAKE UP FOR THE MISSING PRODUCTION STAFF THAT CAN'T BE MADE UP FOR BY THE $10 JUMP IN PRICE ALONE.

WITH THAT BEING SAID, THE MOST COVETED PERSON, WHO SHOULD IN THEORY BE THE WEALTHIEST, WILL BE THE TOOLS DESIGNER WHO CREATES THE TECHNOLOGY WHICH AUTOMATES EXTENDED PLAYABLE LEVELS TO EXPLORE AS WELL AS THE ANIMATION PIPELINE. FOR THE SMART SKINNER SOFTWARE/TECHNOLOGY THAT I DESIGNED, I WAS ABLE TO SHED THE CHARACTER TECHNICAL CONSTRUCTION PROCESS AT THE LEVEL OF INDUSTRIAL LIGHT AND MAGIC FROM APPROXIMATELY 80 HOURS TO ABOUT 15 MINUTES. THIS SAME IDEOLOGY CAN BE APPLIED TO CHARACTER DESIGN, MOTION SYSTEMS, ENVIRONMENTS, AND PROPS, SAVING COSTS WHILE NOT COMPROMISING ON QUALITY. I ACHIEVED THE SYSTEM BY INVENTING A REFERENCE SKINNING PIPELINE THAT HAD NOT BEEN DONE BEFORE WHILE CONVERGING A CONTROL RIG FROM ALL PREVIOUS EMPLOYERS, AND INCORPORATING MOTION CAPTURE. AFTER A FEW TESTS AND WORKING OUT A FEW BUGS, IT WORKED BEAUTIFULLY.

SO, TO IMAGINE WHAT THAT MEANS, FOR THE TOOL DESIGNER IF HE OR SHE WERE TO GO INDEPENDENT, THE AUTOMATION TECHNOLOGY THAT WOULD BE REQUIRED TO CUT COSTS ON THE PRODUCTION OF SAY FOUR CHARACTERS, AT 80 HOURS EACH, OR 320 HOURS, COULD BE DELIVERED IN 1 HOUR. IF THE TOOL DESIGNER IS BILLING AT $100 PER HOUR, AT 320 HOURS, THAT'S $32,000 OF BILLABLE TIME DELIVERED IN 1 HOUR, OR $100. FROM A BUSINESS STRATEGY STANDPOINT THEN, THE TOOL DESIGNER, PROVIDED THE CLIENT LIKED THE TECHNOLOGY, COULD CHARGE $10,000 FOR THE ONE HOUR OF WORK, DELIVER THE CHARACTERS IN ONE HOUR, AND SAVE THE PRODUCTION $22,000 IN COSTS... THEREBY BEING THE KEY ASSET IN THE PIPELINE. AT THAT RATE, THE TOOL DESIGNER, IF HE OR SHE ONLY WORKED ONE HOUR A MONTH, COULD EARN $120,000 PER YEAR FOR A TOTAL ANNUAL WORK TIME OF 12 HOURS. THAT RATE WOULD THEN BE MULTIPLIED TO SCALE. THAT'S A PRETTY AMAZING BUSINESS STRATEGY.

THE SAME THING WOULD GO FOR A.I. AS YOU EXPAND INTO LEVEL DESIGN OF ENVIRONMENTS. THROUGH PROCEDURAL GENERATION CREATED BY SOFTWARE THAT THE TOOL DESIGNER AUTHORS, BUILDINGS AND ENVIRONMENTAL DIGITAL ARTIFACTS CAN BE PROCEDURALLY DESIGNED THROUGH THE USE OF A MODIFIABLE TEMPLATE THAT SHOULD, IN THEORY, POPULATE A DIGITAL CANVAS INSTANTLY WITH VERY LITTLE MAN HOURS, SAVING MONTHS OF TIME ON THE PRODUCTION PHASE. THIS IS WHY AS GAMES BECOME MORE COMPLEX, THE MOST COVETED PERSON WILL BE THE TOOLS DEVELOPER... OR THE "AUTOMATOR" OR "PROCEDURAL GENERATOR."

DESIGNING ARCHITECTURAL FORMS AND ENVIRONMENTS FOR DIGITAL, NOT PHYSICAL

A PROCESS OF DIGITAL CLAY SCULPTING VS PHYSICAL CHIP BOARD MOUNTING

As I have let it be known, one of my goals is that every three years I take a sabbatical from game entrepreneurship and development and lecture as a professor in the digital design department at Harvard or Stanford. If that honor gets bestowed on me, the class will be centered on the workflow used to conceptualize, design, and execute the proper principles required to build a level, or buildings and objects in that level, for a video game like Grand Theft Auto. Architects often use a process in design where they design a building from the "inside out." Meaning, they explore the various functions of that building and practice various methodologies to make a functional space that influences the exterior of the design, but with the interior functionality taking dominance. In video gaming, however, a lot of environmental objects, building included, are created simply for the purposes of ornamentation. As opposed to wayfinding adjacency plans and elevations, three dimensional forms are immediately drafted. In architecture, when conceptualizing, it is often the process goes from pen and paper, to chip board model, to rendering... composition, to physical exploration.

Due to the freedoms a designer can have in the 3D world, such as no gravity, etc, the level designer can begin the conceptualization process with a different set of tools... like Zbrush and autodesk mudbox. The difference, when most architects explore in the third dimension, they do it through chip board modeling. The problem with chip board modeling, when you explore the overall form, you are focused on cutting an individual piece of foam core or chip board and assembling an overall form by assembling parts, like legos, to create a physical volume. The focus when doing this, the problem, is you are focusing on individual Lego pieces of foam core that you are gluing together as opposed to the roughed volume itself. In mudbox and Zbrush, the designer can use the digital tools to grab digital balls of clay, and rough out in raw form a volume relatively quickly, without worrying about structural architecture. These forms, once generated, can then be brought into autodesk maya where digital planes and cubes can be applied as paneling to the blocked out form. This process, should in theory lead to a smoother workflow for the design architect making the game.

Lastly, once this workflow is completed for these games, the digital paneling, which is defined in the viewport of the software, can now be identified mathematically. If the vertices, volumes, shaders, and forms, are then identified mathematically, they can be regenerated instantly in code... multiple copies with each building having a variance but still retaining the same architectural style. So, if a front view of a building, that we will call "The Brent", has a set of parameters that were defined in the structures concept stage in mudbox, that in order to be a "Brent", the opening on the building has to be centered in the middle of an exterior wall, and that is the only "coded" rule, then as long as the front wall's opening, for example, has ten feet on either side, if that building were to be procedurally generated to save time in the creation portion of Grand Theft Auto, if the "Brent" command was called in object oriented programming, and three buildings were generated, they could have three unique openings entrances to each; as long as they satisfied the rule of frontal wall being equal on both sides. Those initial designs would be drafted in that Zbrush or mudbox software and called out procedurally. Therefore, from a monetization standpoint, it is then possible that in a Grand Theft Auto type game, as opposed to spending multiple months designing buildings and objects, if that game were to take place in a city like Columbus, Ohio, for example, each object in the object oriented programming procedure with randomization on building details, could look like the same architect designed various buildings in the same city, or multiple architects designing multiple buildings in the same city, that would be instantly generated through code; with groups of buildings sharing similar architectural style but no two buildings being the same-therefore looking like they were designed by the same architect of a particular period- all instantly. This technology, through default then, would save a project like Grand Theft Auto tens of millions in production costs while maintaining quality. This kind of methodology and workflow I am also interested in pursuing as a second masters in engineering from what will be the potential of a top five engineering school like Stanford, Berkeley, MIT, Carnegie Mellon, or Illinois.

A DESIGN ENGINEERING CHALLENGE

CULTURAL DESIGN DIFFERENTIATIONS EXECUTED IN MULTIPLE VARIANTS OF HARRY POTTER'S HOGSMEADE

As I have made public, my eventual goal at an entertainment giant like Industrial Light and Magic, EA, Sony PlayStation, XBOX, Rockstar, or Warner Bros, is to become a Chief Visual Officer, by which, through salary, stock, and bonus, could pay upwards of ten million a year. One of the first tasks I've mentioned where I could prove my skill set for that title is on the film game convergence portion of Spider-Man intellectual property where I write a common pipeline to be used in the character rigging portion of the hero characters between PlayStation, Sony Pictures Imageworks, and Sony Pictures Animation. That pipeline and workflow would save Sony millions in cost, afford downsizing of unnecessary teams, and not sacrifice quality of motion or deformation across the three platforms, while maintaining the "Spider" aesthetic. This task most likely, at early estimate, with one or two engineers at my disposal, would take six months to a year to pull off: the spider converged autoskinning modular autorig.

The second challenge I would like to tackle is the one that this blog is centered on. As the Wizarding World of Harry Potter expands in games and films, more exploratory content will need to be produced. By the films alone, the majority of the scenery has taken place in England. As DLCs for expansive video games get developed, it is possible that more "Hogwarts" style schools will pop up in different cities throughout the planet in this world: a school for the students to attend, and a shopping area (Hogsmeade) for them to purchase supplies in retail. What would be the challenge, would be to first identify where all of the different school locations would be (Rome, Moscow, Chicago, Paris, Tokyo, Prague, etc), identify what the key features of the architecture of that time period are per city (maybe in 1900 in Tokyo a lot of Bamboo was used on the roofs of first level buildings as opposed to brick in Prague), and then design plugin technology based on object oriented programming where you take a base design of a Harry Potter building in Hogsmeade, that JK Rowling would approve of, of course, select the object, execute the operation, and through procedural design the building would change to that city's period architectural style. The workflow would then be, spending twenty hours on a base polygonal building, then through this technology, instantly procedurally designing a new building based on that style cutting your design production in at least half per building.

So, if there were a Hogsmeade in five cities, and a stylized building took 40 hours to create the long way, and a base building prior to the technology took twenty hours, and each Hogsmeade had thirty buildings in it, as opposed to the art team having to spend (5 cities X 40 hours per building X 30 buildings) or 6000 hours, they could use this technology for (1 city X 20 hours per building X 30 buildings) 600 hours, then run the technology through the instant design… and 6000 hours of environment art design would be completed in 600 hours.

This base tech could then be applied to other games outside of Warner Bros, including if there was a multiverse Spider game for PlayStation or multiple planets in Halo. Like I had mentioned in a previous blog, as games expand and the cost to produce the mass levels of these games does not get added into value of the budget in regards to additional staff, the tools designer or chief visual officer, that can write the technology to procedurally generate the large amount of quantity of objects needed to complete the level will become the most important person in the pipeline.
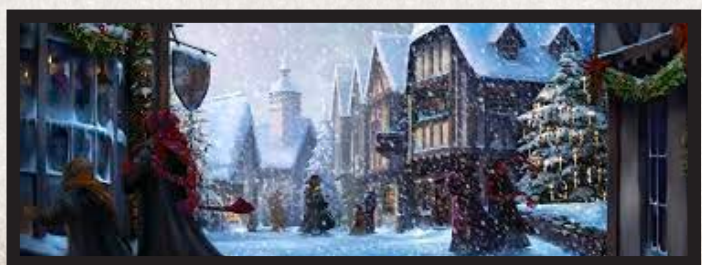
THE PR TEAM OF MICHAEL JACKSON

BEING CONTACTED ABOUT REPRESENTATION

AS I WRITE THIS... I'M LISTENING TO "SMOOTH CRIMINAL." ONE OF THE BIGGEST ACCOMPLISHMENTS THAT AN ARTISTIC PERSON CAN HAVE, IS BEING RECOGNIZED AS AN INDIVIDUAL OUT OF THE GROUP, LIKE MICHAEL FROM THE JACKSON 5, WHERE MEDIA AND ARTISTIC ORGANIZATIONS RECOGNIZE YOUR INDIVIDUAL ACHIEVEMENTS, WANT TO REPRESENT YOU, AND MARKET YOUR INDIVIDUAL ACHIEVEMENTS WORLDWIDE. THAT HAS HAPPENED, CREATIVELY... I'VE MADE IT. I WAS REALLY PLEASED WHEN THE PR PERSON OF MICHAEL JACKSON REACHED OUT TO ME ABOUT REPRESENTING ME. DUE TO PUTTING MY PARENTS ASSETS IN CASH LIQUID, PROBATES, AND GETTING THEIR HOUSE PREPPED TO SELL, I PUSHED BACK SIGNING WITH HIM, TEMPORARILY... EVEN THOUGH I HAVE TWO MONETIZED WEBSITES AND SOFTWARE PLUGINS I AM RERELEASING TO MARKET. I WILL BE SIGNING WITH HIM ONCE THE PROBATE SITUATION IS HANDLED.

I AM... THE ARCHITECT... THE INDUSTRIAL DESIGNER... THE ENGINEER... THE ARTIST... THE ENTREPRENEUR... THE INNOVATOR... THE JACKSON. MICHAEL IS ONE OF THE GREATEST MUSICIANS OF ALL TIME, AND I AM ONE OF THE HIGHEST ACCOLADED CREATIVE DESIGN ENGINEERS/ GRAPHICS ARCHITECTS ON THE PLANET. ALTHOUGH I THOUGHT IT WOULD EVEN BE A MATTER OF TIME UNTIL THIS HAPPENED TO ME, IT IS AN HONOR THAT THIS HAS HAPPENED. JUST BRILLIANT.

THE LUCASFILM BEST PRACTICES REVIEW COMMITTEE

TECHNIQUES, NOT CONTENT

VISUALLY, ARTISTICALLY, ENGINEERING WISE, AND TECHNICALLY, LUCASFILM IS THE MOST ADVANCED COMPANY IN THE HISTORY OF THE PLANET. I HAVE EVEN MET ENGINEERS AT THE DEPARTMENT OF DEFENSE THAT TECHNICALLY DO NOT STACK UP TO THE SKILL SET REQUIRED TO PERFORM AT INDUSTRIAL LIGHT & MAGIC. TO BE ON THE LUCASFILM BEST PRACTICES STEERING COMMITTEE WAS A REAL HONOR. TECHNICALLY AND ARTISTICALLY, THAT PUTS ME IN THE SAME CATEGORY AS LEONARDO DAVINCI. THIS GROUP THAT MET EVERY THREE WEEKS WAS NOT DEALING WITH THE CONTENT OF STAR WARS. WE WERE DEALING WITH THE TECHNICAL CONSTRUCTION, BEST PRACTICES, AND METHODOLOGIES USED TO DESIGN THE "NUTS AND BOLTS" OF THE ASSETS IN STAR WARS. IT WAS THE ASSEMBLY BETWEEN THE TEN TO TWELVE OF US, ALL LEADERS WITHIN THE ORGANIZATION, THAT WE COULD SET STANDARDS THAT WOULD BE ROLLED OUT FIRM WIDE. THE MAIN ASSEMBLER OF THE GROUP WAS THE FORMER CTO, RIGHT HAND PERSON, OF PETER JACKSON'S WETA DIGITAL WHO GUIDED THE GROUP. I WAS VERY VOCAL IN MY OPINIONS ON METHODOLOGIES, ESPECIALLY WHEN IT CAME TO DEFORMATION PRACTICES ON CHARACTER TECHNICAL CONSTRUCTION. THE GROUP WENT OVER EVERYTHING FROM SHADERS, TO RIGGING, BUT FOCUSED PRIMARILY ON MODELING TOPOLOGY. A VERY GREAT EXPERIENCE AND TEAM TO BE ON WHILE I WAS AT LUCASFILM. IF I DO EVENTUALLY BRANCH OUT ON MY OWN TO FORM A GAME OR ANIMATION STUDIO, OR IF I LEAD THE TECHNICAL AND VISUALS OF ANOTHER COMPANY, THE CONVERSATIONS THAT WERE HELD IN THESE MEETINGS WILL GIVE ME A CONFIDENCE WHERE I KNOW I AM MAKING THE RIGHT DECISIONS. MAY THE FORCE BE WITH YOU.

BECOMING A WELL ROUNDED CHIEF VISUAL OFFICER

TAKING INSPIRATION FROM FASHION AND LAUNCHING THE CLOTHING LINE

When working in games, or even visual effects concepts, different creative approaches are used when problem solving. No one approach is better than another. One might be industrial design, where you go through a scientific methodology to create a character or spaceship. One might be architectural, where you explore the z axis (depth) of a virtual environment in order to navigate through... and fundamentals such as line, opening, barrier, etc come into play. One could be artistic, where the design engineer/ chief visual officer looks at volume in a digital sculpture or composition, as well as the color, shade, and blending variants on a canvas, character, or background plate. Finally, one can be fashion oriented, where the visual officer looks at volumes, colors, material specification, although in games digital, on a character or creature in a game. In order to be well rounded as a chief visual officer, it is good to study all processes, that way when you conceptualize, or delegate to your team, you are equipped to handle multiple design problems with different approaches should they arise. When I was an intern on Superman, I was designing the game's citizen outfits on the title. In order to do so, I had to read magazines varying from GQ, to Vogue, to Cosmopolitan, look at the trends of the time, and incorporate them into the player models. It helped that in undergrad at OSU I had worked as a visual merchandiser at Tommy Hilfiger. I understood fashion, trends, what to look for in working class citizens that would be walking the streets in Metropolis. This made it easier when completing this task because I could design "trendy" attire.

For my own clothing line, Sketches of Brent Zorich, because I have a love of fashion, I contacted a distributer and got the Adobe Photoshop sketches I had lying around to become designs on t-shirts ready to sell. Within a couple of months, due to the popular comments made to my drawings online, PR firms began contacting me putting me in The Wall Street Journal as well as giving me the opportunity to potentially be in Vogue. I have always been a fan of the movie "The Devil Wears Prada" and learned from a famous quote by Warren Buffett, "the key to achieving financial wealth is to put yourself in a position to earn money while you are asleep". Taking baby steps, I now have two monetized websites that sell two fashion product lines, t-shirts and hoodies, and I earn about ten dollars per every shirt or hoodie sold. It might not sound like much, but it can add up, it's a break from crunching Autodesk Maya constantly, and it's applicable as a skill set that would impress a Kathy Kennedy (Lucasfilm President), Tokyo (Sony Heads), Satya Nadella (Microsoft), or Andrew Wilson (Electronic Arts CEO) that would assist in eventually becoming a chief visual officer at an Electronic Arts, Sony, ILM, etc, that with salary, stock, and bonus, could bring in three to ten million a year eventually. Job well done.

TWO MONETIZED WEBSITES SELLING CLOTHING:

1. http://sketchesofbrentzorich.com

2. https://brentzorich.com/index.html#refClothing

THE POTENTIAL SECOND MASTERS DEGREE AT STANFORD:

TO MBA OR TO MS (TO MANAGE OR TO BUILD)

ME BEING VERY GRATEFUL, I AM CURRENTLY BEING PURSUED BY STANFORD UNIVERSITY FOR A SECOND MASTERS, THIS ONE BEING A MBA. STANFORD IS THE TOP SCHOOL ON THE PLANET AND IT IS GREAT TO BE ON THEIR RADAR. THE QUESTION I HAVE IN REGARDS TO THIS, IS A MBA NECESSARY WHEN YOU HAVE ALREADY OPERATED YOUR OWN BUSINESS AND NEARLY SOLD IT FIVE TIMES. I'M NOT SURE OF THE BENEFITS TO A MBA, OR WHAT YOU WOULD LEARN IN CLASS, THAT YOU AREN'T LEARNING ON THE JOB. IT TYPICALLY SEEMS THAT A MBA IS FOR PROSPECTIVE STUDENTS WHO MIGHT HAVE ONE TO TWO YEARS OF EXPERIENCE, AND WANT AN EDGE ON THEIR COMPETITION. AN EXECUTIVE MBA MIGHT BE MORE ADVANTAGEOUS AT THIS POINT. I WOULD BE FOLLOWING IN THE STEPS OF ASIAN AMERICAN BUSINESS WOMAN AND FORMER LUCASFILM PRESIDENT MICH CHAU; ALTHOUGH ASIAN AMERICAN CHIEF VISUAL OFFICER AT LUCASFILM, DOUG CHIANG, MIGHT BE MORE OF WHAT I HAVE IN MIND.

FROM A CAREER STANDPOINT, I MIGHT BE MORE INTERESTED IN CONTINUING STUDY, THE SECOND MASTERS, BEING IN ENGINEERING... OR THE MS. I'D PROBABLY RATHER BUILD ASSETS THAN MANAGE ASSETS. THOUGHTS ARE, IF YOU HAVE AN ARTISTIC TALENT, IT MIGHT BE A BETTER FIT FOR THE COMPANY YOU ARE WITH, OR INDEPENDENTLY, TO USE YOUR HANDS OVER DIRECTING ORDERS ON A PROJECT.

CAREERS ARE LONG, THINGS CAN CHANGE. BUT I THINK I'D RATHER BE WALT DISNEY THAN ROY DISNEY. THAT BEING SAID, IT WOULD BE NICE TO SHOOT A SIGNATURE IN AN EMAIL LIKE THIS IMAGE TO VENTURE CAPITALISTS IN SILICON VALLEY FROM A STANFORD DOT EDU EMAIL ADDRESS.

THE PLAYER

A PLAYER IS NOT THE PERSON WHO TALKS THE LOUDEST OR PARTIES THE HARDEST... NO... A PLAYER IS THE PERSON WHO CAN DEVELOP TECHNOLOGY THAT CAN COMPLETE 560 HOURS OF GEORGE LUCAS LEVEL WORK IN 3.5 HOURS WITHOUT A COMPROMISE ON QUALITY.
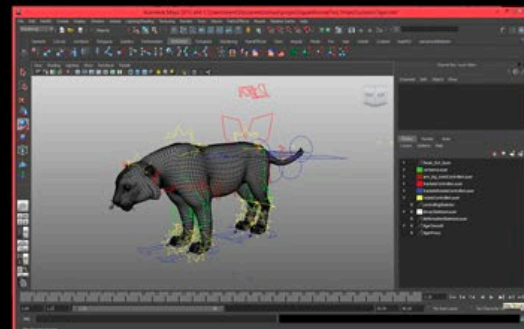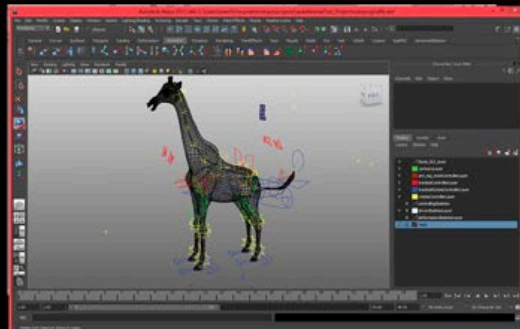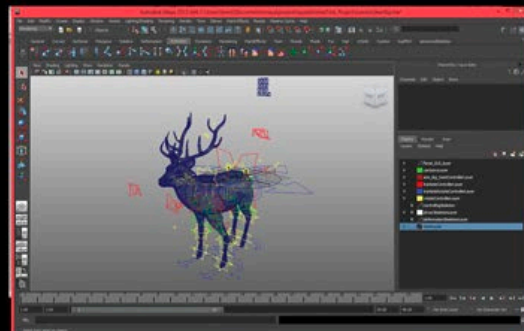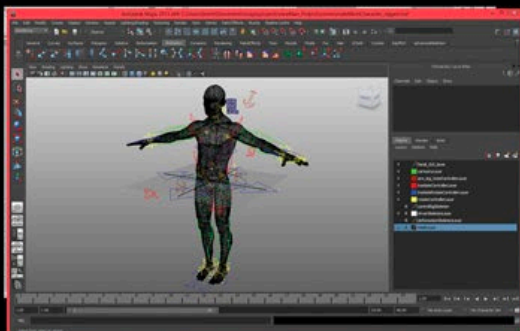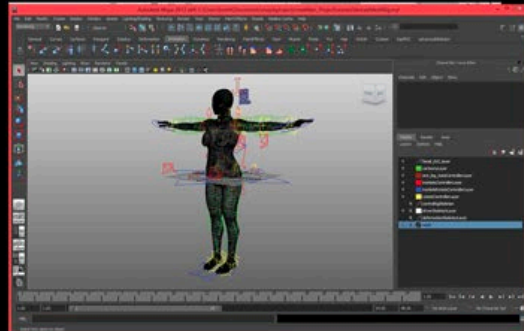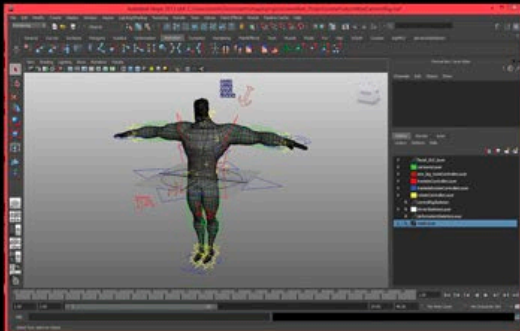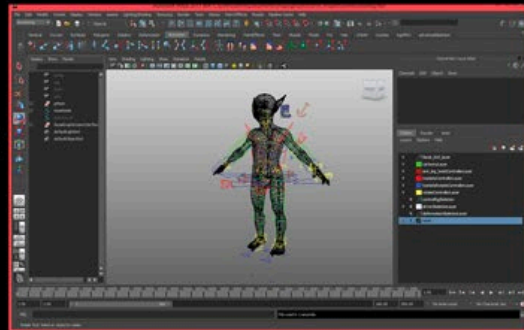
THE WORK OF TIM BURTON

I have always been a fan of Tim Burton. His dark work, very stylized, and twisted sense of humor has always spooked me out. He is a true success story of a Cal Arts classically trained animator who went to work for Walt Disney Feature Animation, got terminated from Disney Animation for being too dark, developed his own style, and executed it in a way in which no one else has been able to execute.... now working with Disney on his own terms and calling the shots on his own production. His drawings for concept are very stylized and dark, having character, even though I am more of an industrial design illustrator when it comes to artwork. I am really looking forward to watching his latest work, "Wednesday." Jenna Ortega has won several awards as being an up and coming Mexican and Puerto Rican rising star, even though she is twenty, the early reviews on her show are through the roof. Plus, when I read about the show and looked her up, her Greek Astrology is a Libra, and I'm a Sagittarius... total compatibility... and her Chinese Zodiac is a Horse, and I'm a Tiger... total compatibility. What do you know... Wednesday Addams might be my perfect working relationship, how cool is that? She's a very dark actress that takes her craft seriously. Often at times in Potter, I see myself as Lucius Malfoy, due to the love of family, his serious side when it comes to work, and his pure blood wizardry... as I feel, as though due to my ancestry I am a pure blood architect, artist, and design engineer. In addition to Wednesday, I could see Jenna playing an alternate younger adult version of Narcissa Malfoy and knocking it out of the park. Looking forward to seeing Tim Burton's stylized art direction in this latest piece of work. Again, really amazing stuff. Tim Burton is one of my favorite directors.. up there with Kubrick, Lucas, Nolan, Spielberg, and Jackson... although I am more or less designing for the gaming industry.... which is the new Hollywood, far more lucrative and far more powerful.

Tim Burton Show "Wednesday" starring Jenna Ortega

One of my architectural designs done in a Tim Burton Style

NORWEGIAN WOOD

GREAT DESIGN IS "OPTIMIZED COMPLEXITY"

WHEN IT COMES TO DESIGN, ART, ANIMATION, VIDEO GAMES, AND VISUAL EFFECTS, WHEN IN DOUBT, IF THERE IS A SONG THAT YOU NEED TO PLAY IN ORDER TO GET YOUR HEAD THINKING STRAIGHT, IT'S 'NORWEGIAN WOOD'... AND IT'S THE BEST OF JOHN LENNON'S BEATLES. SO MUCH COMPLEXITY COVERED BY SO SIMPLE OF CHORDS... LIKE A COMPLEX SHAPE OR ENGINEERING SOLUTION BEING CONCEALED BY A GUI, PROTECTIVE CASING, STORE FRONT, WEB CRAWL, CONTROL RIG SETUP, OR REAL TIME CLOTH FOR A VIDEO GAME CHARACTER, THAT ENABLES THE WORK TO BE PICKED UP ON AND UNDERSTOOD SO QUICKLY- EVEN THOUGH THERE ARE MULTIPLE STROKES HAPPENING WITHIN THE SAME TIME FRAME. LYRICS... EASY ENOUGH FOR A CHILD TO PLAY WITH AND UNDERSTAND WITH LITTLE TRAINING, BUT DESIGNED IN A WAY THAT ARE COMPLEX AND LAYERED, AND CRAFTED IN A WAY THAT ONLY A GENIUS LIKE JOHN LENNON COULD MAKE. THAT'S WHAT MAKES GREAT ANIMATION AND DESIGN... "OPTIMIZED COMPLEXITY". OPTIMIZED COMPLEXITY IS KEY TO CREATING GREAT WORK: FIGURING OUT A COMPLEX SOLUTION TO A PROBLEM THAT THE DESIGN ENGINEER, WHETHER IT BE GAME, ARCHITECT, OR INDUSTRIAL DESIGNER, ADDRESSES, AND MAKING IT SO USER FRIENDLY, A NOVICE CAN COMPREHEND IT'S COMPLEXITY WITH LITTLE OR NO TRAINING. IF YOU HAVEN'T HEARD THEIR BEST SONG YET, DEFINITELY LOOK IT UP.

THANK YOU FOR YOUR CONSIDERATION

- JANGO RED -