

# Kolton Eichers

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## Education

### **Master in Entertainment Arts and Engineering: Technical Art**

University of Utah, Salt Lake City, UT

August 2018 – April 2020

- Thesis: Game-Ready Houdini Simulations and Visual FX for Unreal Engine and Unity3D
- Game creation in interdisciplinary teams using Unreal Engine, Unity3D, MonoGame
- 3D, VFX, and Technical Artist on Alt-Ctrl game *Goodbye* and thesis game [Mya of the Desert \(steampowered.com\)](http://MyaoftheDesert.steampowered.com)
- Digital Content Creation TA

### **Bachelor of University Studies, EAE Emphasis**

University of Utah, Salt Lake City, UT

August 2014 – April 2018

- Focused on 3D art and asset creation for use in Unreal Engine and Unity 3D as well tools and tool creation to streamline implementation
- Game creation in interdisciplinary teams using Game Maker, Unity3D, Unreal Engine
- 3D Artist and Level Designer on thesis game [Kickshot \(steampowered.com\)](http://Kickshot.steampowered.com)

## Teaching and Instructor Experience

### **Adjunct Assistant Professor**

Division of Games - University of Utah

August 2023 – present

- Restructured courses to match current and evolving industry pipelines and methods
- Instructed interdisciplinary groups of students in the traditional approach to concepting, pitching, and developing games and prototypes in Unreal Engine 5 and Unity
- Instructed interdisciplinary groups of students in concepting, pitching, and developing alternative games with the purpose of relaying more than just entertainment to the audience in Unreal Engine 5
- Instructed interdisciplinary groups of students in concepting, storyboarding, and producing 3D real-time short films and in-engine cinematics and interactive machinima in Unreal Engine 5
- Instructed students in the creation and implementation pipeline of game assets and content including textures, materials, static and skeletal meshes, rigs and animations, optimization, baking maps, etc.
- Created multimedia lecture and demo materials to enhance student learning
- Further refined lecture and class materials to ensure advanced student knowledge of methods for 3D asset creation, game design and development

### **Associate Instructor**

Entertainment Arts and Engineering - University of Utah

August 2019 – August 2023

- Restructured courses to match current and evolving industry pipelines and methods
- Instructed interdisciplinary groups of students in the traditional approach to concepting, pitching, and developing games and prototypes
- Instructed students in the creation of high-quality 3D models, efficient and clean topology, the importance of edge flow, and becoming fluent in the character and asset creation, optimization, baking, texturing, and implementation workflows and pipelines
- Created multimedia lecture and demo materials to enhance student learning
- Further refined lecture and class materials to ensure advanced student knowledge of methods for 3D asset creation

### **Youth and Continuing Education Instructor**

Entertainment Arts and Engineering - University of Utah

June 2018 – present

- Developed and restructured courses guiding students through many aspects of game design, development, and prototype creation in Unreal Engine 5
- Created multimedia class materials, lectures, and demos to accommodate different learning styles and ensure student comprehension of class content

### **Teaching Assistant, Digital Content Creation**

Entertainment Arts and Engineering - University of Utah

January 2019 – April 2019

- Assisted in preparing lectures, demos, and activities focusing on the many aspects of content creation for games
- Graded course work and assignments, offered feedback, and ensured students understood course material

### **Workshop and Camp Instructor**

Granite Technical Institute - Salt Lake City, UT

July 2016 – July 2017

- Created and taught courses to introduce students to the process of game art, design, and development

### **Guest Teacher**

Granite Technical Institute - Salt Lake City, UT

January 2015 – June 2016

- Instructed students in the creation of 3D models, staging and rendering, and animation keyframing in Maya

## **Professional Experience**

### **Blueprints Mechanics Scripter and Technical Artist for Unannounced Unreal Engine Game**

Independent Team - Salt Lake City, UT

April 2024 – present

- A small team of Artists, Engineers, and Designers working on Vertical Slice in Unreal Engine 5
- Scripted and implemented nearly all player mechanics and gameplay using Blueprints Visual Scripting
- Along with team's Engineer, created robust system of stages to alter gameplay and visuals depending on player progress and to act as a checkpointing system
- Working with Art team to create and implement models and materials for Vertical Slice
- Created Blueprints to produce and update inventory UI icons and other images and textures in real time, allowing players to inspect/interact with items in their inventory similarly to Resident Evil or Skyrim

### **Solo Independent Game Developer for Untitled Dungeon Crawler, Clicker Game Projects**

Independent - Salt Lake City, UT

November 2023 – present

- Created core mechanics for clicker movement, exploring, gathering, building, and battling in a hybrid 2D/3D game prototype in Unreal Engine 5
- Created Hub Level and Gymnasium Dungeon for gameplay and mechanic testing and prototyping in Unreal Engine 5
- Refining gameplay, scripts, systems, and rules while creating, gathering, and implementing art assets, models, shaders, rigs, animations, materials, etc. on both projects

### **3D Modeling Artist**

Freelance, Salt Lake City, UT

December 2019 – present

- Created a variety of detailed models ranging from low and mid poly models to high poly production models
- Cleaned-up and optimized models for performance for use in various projects and platforms

### **3D Game Asset, VFX, and Texture Artist for [\*Mya of the Desert\*](#)**

Emergency Entrance Studios - Salt Lake City, UT

August 2019 – May 2020

- Created and implemented models and environment pieces with their textures and materials
- Created and optimized numerous VFX in Houdini for use in Unreal Engine including the sandstorm, quicksand, falling sand, bursts of sand, and real-time building destruction after the player defeats the final boss
- Continued work and refinement on assets and gameplay after initial release through post launch support

### **3D Game Asset, VFX, and Texture Artist, MoCap Performer for [Goodbye \(Alt Ctrl Game\)](#)**

Creeple Studios – Salt Lake City, UT

January 2019 – May 2019

- Created and implemented environment assets, optimized models for use in Unity and created and applied materials and textures
- Created VFX in Houdini and shaders in Unity for the ghost characters seen throughout the experience as well as fire VFX and more
- Co-ran MoCap software and acted as MoCap performer for many of the game's cutscenes and narrative moments
- Submitted game and its Ouija board controller and peripherals to Alt.Ctrl for consideration at GDC 2019

### **3D Vehicle and Asset Artist**

Odd Fenix and Royal Caribbean International - Salt Lake City, UT

November 2018 – November 2019

- Created models and interactive diagrams and maps for the new line of Royal Caribbean cruise ships and their featured amenities
- Optimized ship models for use in a mobile app for customers to take virtual tours of ships, decks, rooms, and amenities

### **3D Prop and Environment Artist for VR Experiences**

HypergrowthCEO - Salt Lake City, UT

June 2018 – January 2019

- Worked with a varied team of programmers, tech artists, and cinematographers to create new VR prototypes for interactive media
- Modeled and textured assets, props, and set pieces as well as staged environments for interactive VR experiences

### **3D Game Asset and Texture Artist, Level Designer for [Kickshot](#)**

R.A.M. Studios LLC - Salt Lake City, UT

August 2017 – May 2018

- Created numerous stylized environment pieces, hero assets, collectibles, and their materials
- Designed and created several levels in each of the game's worlds utilizing the core mechanics and ensuring varied yet ramping difficulty
- Held multiple playtest sessions at the Granite Technical Institute with games and animation students as well as at the Microsoft Store to collect and apply feedback

### **Building Renovation Concepts and Rendering**

Diehl Concepts LLC - Salt Lake City, UT

December 2015 – August 2016

- Designed concepts and created renderings for client to visualize updated building renovations

## **Career and Technical Training Service**

### **Skills USA, 3D Animation and Visualization Committee**

February 2015 – present

- In cooperation with Mark Walton, Rodger Brown, and Lars Andersen, created prompts and judged submissions in state-level 3D animation and visualization competition categories
- 2015 State Winner went on to become the 1<sup>st</sup> Place National Winner

### **Skills USA, Interactive Media and Video Game Contest**

February 2019 – present

- Served as Technical Committee Chair for the state-level Interactive Media and Video Game Contest as well as assessed and evaluated team performance
- 2022 State Winner went on to become 2<sup>nd</sup> Place National Winner

## **Academic Service**

### **Utah Digital Media Arts Festival**

February 2015 – present

- Assessed and evaluated student submissions in a variety of competition categories including 3D Modeling, 3D Animation, 2D Illustrations, Game Design, Animation, etc.

## **Curriculum Development**

### **Courses Created**

#### **Game Design Studio (Age 11-13)**

- Created daily lesson plans, class activities, and learning objectives for a more comprehensive study of game design combining multiple genres and types of gameplay
- Created resources such as step-by-step instructions for lessons, screenshots, code snippets, and videos

#### **Game Design Studio (Age 14-17)**

- Created daily lesson plans, class activities, and learning objectives for a more comprehensive and advanced study of game design combining multiple genres and types of gameplay
- Created resources such as step-by-step instructions for lessons, screenshots, code snippets, and videos

#### **Advanced Game Design Studio (Age 14-17)**

- Created daily lesson plans, class activities, and learning objectives building directly from the content covered in Game Design Studio

- Content included highly requested topics like more complex Enemy behaviors, custom character and animation, and more polished User Interfaces and User Experience

#### **EAE Girls: Game Design**

- Created daily lesson plans, class activities, and learning objectives for a more comprehensive study of game design combining multiple genres and types of gameplay
- Created resources such as step-by-step instructions for lessons, screenshots, code snippets, and videos
- Collaborated with Ashley Guajardo to tailor content and add relevant info pertaining to women in the games industry

#### **Game Design: 3D Worlds**

- Created daily lesson plans, class activities, and learning objectives for the study of game design focusing on Third-Person genre and gameplay
- Created resources such as step-by-step instructions for lessons, screenshots, code snippets, and videos

#### **Game Design: First-Person Action**

- Created daily lesson plans, class activities, and learning objectives for the study of game design focusing on First-Person genre and gameplay
- Created resources such as step-by-step instructions for lessons, screenshots, code snippets, and videos

#### **Game Design: Side-Scrolling Adventures**

- Created daily lesson plans, class activities, and learning objectives for the study of game design focusing on Side-Scrolling genre and gameplay
- Created resources such as step-by-step instructions for lessons, screenshots, code snippets, and videos

#### **Game Design: Arcade Classics**

- Created daily lesson plans, class activities, and learning objectives for the study of game design using examples from well-known classic arcade games to inform design and gameplay
- Created resources such as step-by-step instructions for lessons, screenshots, code snippets, and videos

#### **Game Design: Multiplayer Madness**

- Created daily lesson plans, class activities, and learning objectives for the study of multiplayer game design using examples from popular multiplayer games like Fortnite and Super Smash Bros
- Created resources such as step-by-step instructions for lessons, screenshots, code snippets, and videos

#### **Game Design: Wreckless Racers**

- Created daily lesson plans, class activities, and learning objectives for the study of creating racing games using examples from popular arcade style racing games like Mario Kart

- Created resources such as step-by-step instructions for lessons, screenshots, code snippets, and videos

## **Other Course Additions**

### **EAE 3600 3D Modeling**

- Updated and created new assignments and teaching methods to match current industry techniques and workflows
- Created new meshes, demo videos, and lecture videos to assist with new assignments

### **EAE 3710 Traditional Game Development**

- Updated and created new assignments and teaching methods to match current game development techniques and workflows in Unreal 5
- Created new example files, demo videos, and lecture videos to assist with new assignments

### **EAE 4300 Advanced 3D Modeling**

- Updated and created new assignments and teaching methods to match current industry techniques and workflows
- Created new meshes, demo videos, and lecture videos to assist with new assignments and ensure students obtain higher proficiency and advanced knowledge creating highly detailed organic and hard-surface 3D models

### **EAE 2100 Intro to Game Design**

- Updated and created new assignments and teaching methods including the use of Excel for game systems design
- Created new example files, and updated lecture slides and content to assist with updated content and assignments

### **EAE 3010 Asset Pipeline**

- Updated class content and assignments for new methods and workflows for Unreal 5 implementation
- Created new example files, demo videos, and lectures for updated asset pipelines

### **EAE 3660 Interactive Machinima**

- Updated and created new assignments and teaching methods to match current game development techniques and workflows to create real-time cinematics in Unreal 5
- Created new example files, demo videos, and lectures to assist with updated course content and assignments

### **EAE 3720 Alternative Game Development**

- Updated class content and assignments for new methods and workflows to concept, pitch, prototype and develop Alternative Games in Unreal 5
- Created new example files, demo videos, and lectures as well as updated content, games, and other materials in the syllabus to better fit University policy while still covering necessary topics

### **EAE 1050 Digital Content Creation**

- Updated class content and assignments for new methods and workflows to better lead into Asset Pipeline and be less susceptible to the use of A.I.
- Created new example files, demo videos, and lectures to assist with updated course content and assignments

### **3D Graphics (Granite Technical Institute)**

- Maximized efficiency of tools and simplified process of UV Mapping workflow
- Introduced topology simplification tools and processes to assist in baking normal maps of high poly meshes to low poly meshes

### **3D Animation (Granite Technical Institute)**

- Demonstrated tools and processes to create simple crowd simulations, particles, and FX
- Introduced Motion Builder for use with MoCap data and animation editing

### **Gaming Development Fundamentals (Granite Technical Institute)**

- Created class content for developing 2D Platformers, taking inspiration from popular games of the genre like Super Mario
- Introduced and demonstrated both white box and gymnasium creation for 3D game and mechanics prototyping

## **Honors and Awards**

### **Centennial Scholarship, 2014**

For aid in pursuing a bachelor's degree

- Awarded for academic achievement while obtaining General Education Diploma

## **Grants**

### **Course Creation - University of Utah**

November 2020 - \$8,400

- Created and developed course content for several summer camps and classes with lesson plans, materials, and content for each day of class

### **STEM Video Game Design Workshop - Granite Schools and University of Utah**

July 2017 - \$5,000

- Created class content, lectures, lesson plans, and demos to instruct students in basic game design in Unreal Engine

### **STEM Hero Asset Production Workshop - Granite Schools and University of Utah**

July 2016 - \$5,000

- Created class content, lectures, lesson plans, and demos to instruct students in hero asset creation including modeling, UV mapping, and baking normal maps in Maya

## **Technical Skills**



Autodesk Maya

Unreal Engine

Blueprints Visual Scripting

Houdini

Substance Designer

Substance Painter

zBrush

Python

Photoshop