

EMPLOYMENT

Software Engineer Intern	AWS Game Tech	Jun 2020 – September 2020
<i>New AWS Game Simulation Service</i>		
<ul style="list-style-type: none"> Designed and programmed all mechanics and features for a sample game using the service. C++, C#, Unity Documented the development process on using the service to improve developer experience. Wrote a report on problems creating simulations and how a developer would solve it 		
Founder / Developer	Pocket Talos LLC	Jun 2019 - Present
<i>AutoKnight</i> (in development and published under Iron Horse Games)		
<ul style="list-style-type: none"> Designed and programmed all mechanics and features. C#, Unity Worked closely with the publisher and QA testers to ensure new features were designed and executed well. Integrated communication between cloud-based servers (synchronize in-game progress with other devices) and web services (track and manage user behavior analytics). Built an anti-cheat system that encrypts save data and detects data tampering. Data tampering had 84% precision and 76% recall with a group of cheaters with at least 5 months of experience 		
Technical Software Developer Intern	Brain Game Center	Mar 2019 - Jun 2019, Jan 2020 - Present
<ul style="list-style-type: none"> Built several variations of a psychological test that assessed visuospatial short-term working memory that helped train 30,000 people on working memory to understand individual differences in interventional needs. C#, Unity Refactored a psychological test's tutorial slides to dynamically utilize and set image and text components to render the slide rather than having a single poorly unscalable and unmaintainable picture for each slide. Coordinated with mentors to ensure new features followed design specifications. 		

EDUCATION

Riverside, CA	University of California, Riverside	Sept 2017 – Jun 2021
<ul style="list-style-type: none"> B.S. in Computer Science, June 2021 Coursework: Virtual Reality; System Administration; Database Management; Software Testing & Verification 		

TECHNICAL EXPERIENCE

Projects

- Incrementum** (Jul 2019 - Present). A set of tools geared towards assisting game developers with a variety of tasks for incremental / idle game development. Provides formulas and iterative models for a variety of progression systems as well as a robust numeric library that supports multiple notations. Reduced time spent calculating optimal choice by 93% with a group of mostly novice game developers **C++, C#, SDL**
- Schedule It!** (Oct 2019 – Dec 2019). An online calendar tool for time management and coordinating meetings. You can view current events and schedule events accordingly. **React, Javascript, Firebase**
- Unconventional Space** (Mar 2019 – Jun 2019). A 3D VR puzzle game involving the manipulation of the user's perception of space to creating these seemingly impossible illusions. **C#, Unity, Oculus**
- Runescape Bot** (Mar 2018 – May 2019). Created an automation program for the game that simulated human interaction while completing specific tasks at a reasonable speed. **C++, SDL, OpenCV, TensorFlow**

- **Tanks AI** (Apr 2019). Developed a dynamic AI bot for the Unity Project *Tanks* whose behavior and difficulty is based on the actions the player takes. *C#, Unity*
- **Pac-Man** (Jan 2019). Developed my own game engine with custom ghost A.I. *C++, SDL*

LANGUAGES AND TECHNOLOGIES

- C++; C#; SQL; Java, Javascript; Bash; Python
- Unity; SDL; Oculus, SFML; OpenCV; OpenGL; Unreal Engine; PyTorch; TensorFlow; Firebase; AWS; Maya; Blender; XML; PlayFab; React; Github; Balsamiq; Unity Ads; Facebook Ads; ironSource; AppsFlyer

OTHER

- Contributed to PyTorch by writing and improving unit tests. *PyTorch, Python*
- Created a Discord bot for my *AutoKnight* QA server that moderated conversations, delivered notifications, and scheduled events. *Python*