EMILY O'NEAL

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EDUCATION

BS IN COMPUTER SCIENCE - CAL POLY STATE UNIVERSITY, SAN LUIS OBISPO   **JUNE 2021**
Concentration in Interactive Entertainment
Courses: Computer Graphics, Mixed Reality, Game Design, Interactive Entertainment, Ray Tracing, Animation, Algorithms, Programming Languages, Systems Programming, Discrete Structures, Software Engineering, Calculus, Linear Algebra

EXPERIENCE

SOFTWARE ENGINEER, PLAYSTATION [SAN FRANCISCO]   **2021 - PRESENT**
Developing off-console experiences to give PlayStation users the perfect companion on both web and mobile platforms.
Improving team morale by running team stand up, retrospectives, and happy hours as a volunteer SCRUM master.

CO-FOUNDER, AMOTION GAMES [SAN LUIS OBISPO]   **2020 - PRESENT**
Founding a startup of 9 people who are making a product that brings motion tracked gaming to fitness.
Creating a web-based platform where movement is the main mechanic in a series of games for kids.
Experimenting with motion tracking and web gaming technologies to bring players an accessible and immersive

R&D SOFTWARE ENGINEERING INTERN, PLAYSTATION [SAN FRANCISCO]   **SUMMER 2020**
Contributing to the proof of concept for an application reimagining how people play games virtually. *confidential*
Developing the design, functionality, and graphics of a multiplayer online game and integrating into the larger platform.
Exploring how immerging technologies can enhance and immerse people in games.

UNDERGRADUATE RESEARCHER, MIXED REALITY LAB [SAN LUIS OBISPO]   **2020 - 2021**
Developing real-time mapping software that allows the human body to be a physical canvas for projected images.
Directing a live performance with Kinect and projectors so that the dancers are able to interact with visual effects.

EMBEDDED SOFTWARE ENGINEERING INTERN, CISCO [SAN JOSE]   **SUMMER 2019**
Developed test automation and execution of next-generation routing products for the Service Provider Network System segment.
Implemented an internal testing framework to increase code coverage in the networking layer, specifically the ACL and QoS.

CURRICULUM DEVELOPER & EDUCATOR, CODE NATURALLY [SANTA CRUZ]   **2016 – 2018**
Shaped the company's commitment to providing students of all backgrounds and interests with relevant and engaging material as one of the first three employees by emphasizing project-driven learning.

PROJECTS

MOTION TRACKING IN VIRTUAL REALITY, CAL POLY [SAN LUIS OBISPO]   **SPRING 2020**
Controlled a character in virtual reality with a motion capture suit and a Kinect camera using Unity.
Compared which type of motion tracking technology would make the virtual experience more immersive.

HUMAN MOTION CAPTURE, CAL POLY [SAN LUIS OBISPO]   **FALL 2019**
Created an animated dance where different parts of the body left trails, creating a paint brush effect.
Worked with the Axis Neuron Motion Capture suit to collect data and OpenGl to convert the data into an animation.

HACKATHONS, JUNCTION [ESPOO, FINLAND] AND CAL HACKS [BERKELEY].   **WINTER 2018**
Integrated the Google Maps API to create automatically generated routes based on certain, user criteria.
Developed algorithms to translate the data given by Google Cloud's natural language processing API into searchable phrases.

LANGUAGES / SKILLS / INTERESTS

- React, JavaScript, Python, GLSL, Java, C#, C++, C Assembly, CSS, HTML, R, BASH, LINUX/UNIX
- Collaboration with GitHub & Slack, Graphics with OpenGl & WebGL, Game Development with Unity & PlayCanvas
- Mixed Reality Game Development, Interactive Entertainment, Computer Science Diversity Outreach, Dance

LEADERSHIP

WISH OFFICER - Created more accessible spaces for underrepresented students to expand their technical skills.   **2018 - 2020**
ENVISION FOUNDER - Spearheaded Cal Poly's first high school hackathon for students along the central coast. **2019**
SLO HACKS ORGANIZER - Coordinated 6 hackathons, raising 70k+ and serving over 400 university students.   **2017 - 2019**
SCTECH FOUNDER - Conceived and organized the first hackathon benefiting 7th-12th graders in Santa Cruz .   **2016 - 2019**