

# JAMES WHITNEY

## COMPUTER & SOFTWARE ENGINEER

### LANGUAGES

C / C++  
PYTHON  
GOLANG  
JAVA  
BASH

### TECHNOLOGIES

REAL-TIME GRAPHICS  
OPENGL  
VULCAN  
GLSL  
  
DISTRIBUTED COMPUTING  
OPENMP / PTHREADS  
CUDA  
MPI  
  
DOCKER  
NETWORKING  
MYSQL  
GIT  
  
MACHINE LEARNING  
DISTRIBUTED TENSORFLOW  
KERAS  
  
EMBEDDED SYSTEMS

### OBJECTIVE

I am a young computer and software engineering professional, currently residing in Seattle, WA. I am seeking an entry level position in back-end development where my experience with computer graphics, containers, and/or distributed computing is most applicable.

### EDUCATION

**BS Computer Engineering** Sep 2014 - June 2018

**California Polytechnic State University, San Luis Obispo**

Advanced coursework including: Advanced topics in Deep learning, Real-Time 3D Computer Graphics, Graduate level Distributed Computing, and Applied Parallel Computing. As the manager of the Mixed Reality Research lab I lead educational seminars and provided student access to emerging virtual and augmented reality hardware.

### PUBLICATIONS

**Co-Authored "Gluster" 2018**

**2018 CMMSE & The Journal of SuperComputing**

*Distributed Execution of communicating sequential process-style concurrency: Golang case study*, A distributed computing Golang library "Gluster" that allows a user to easily distribute golang programs across a cluster.

### SPECIAL PROJECTS

**Gesture Armband 2018**

**Senior Project**

My project with Cal Poly's Mixed Reality Lab was to determine if inexpensive flex sensors could be effectively used to detect and identify hand motions using machine learning techniques including neural networks and dynamic time warping.

**Voyager Game Engine 2018**

**Real-Time Game Engine**

Designed and implemented an OpenGL game engine from scratch in eight weeks with four peers. My main contribution to the engine was the integration of the Bullet3 physics engine into the project, as well as the gameplay for the demo running on the engine.

**Blockchain Network Virtualization 2017-2018**

**Capstone: Minimega Project for Sandia National Labs**

My Capstone team of five students worked with Sandia National Lab's minimega tool to simulate a custom Ethereum network, including miners and transaction traffic. My contribution was the integration of Geth to our containers and the automation of blockchain creation, mining, and the simulation of transactions on the network.

### WORK EXPERIENCE

**Web Developer** May - Sept 2017

**California Polytechnic State University**

Worked with the Dean of Students office to migrate and redesign many of the websites for various on-campus programs.

**Previous Retail and Sales Experience** Jul - Sept 2014, Jun - Sept 2015