

James Whitney

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Visit my site at JasWhitney.com for more information **about me** and a detailed **portfolio** of projects and coursework!

Education:

California Polytechnic State University, San Luis Obispo

BS in Computer Engineering, Graduated **June 2018**, GPA **3.2**

Manager of the Cal Poly **Mixed Reality Lab**

Skills / Expertise:

Strongest Languages:

C / C++
Python
Golang
Java
Bash

Advanced Coursework

Adv. Topics in Deep Learning
Grad. Distributed Computing
Applied Parallel Computing
Real-Time 3D Computer Graphics

Technologies

Git
Distributed Tensorflow + Keras
Machine Learning
Docker
CUDA
OpenMP / Pthreads
MPI
OpenGL
Bullet3
Embedded Systems
Ethereum Blockchain

Electronics Lab: 200+ hours of experience working with semiconductors, circuits, and microcontrollers in a lab.

Gluster Publication:

Accepted to the 2018 CMMSE Conference

Accepted to the Journal of Supercomputing

Gluster is a distributed computing Golang library to allow a user to easily distribute programs across a cluster with minimal additional lines of code. The implementation attempts to mimic the style of common multithreading libraries so that distributing a program across a cluster is just as simple as multithreading.

Completed Projects (more at JasWhitney.com):

- **Senior Project (Gesture Armband):** My senior project at Cal Poly was working with Professor Christian Eckhardt on a research project with Cal Poly's Mixed Reality Lab to determine if inexpensive flex sensors can be used to detect and identify hand motions when they are adhered to the arm of a user. My research in this endeavor involved trying many machine learning techniques to identify gestures, from recurrent neural networks to dynamic time warping.
- **Real-Time Game Engine (Voyager):** Worked as team lead with four students to design and implemented a real-time game engine from scratch in eight weeks. My contribution to the engine was the integration of the Bullet3 physics engine into the project, as well as the development of the player interactions with the ship and turrets for the game demo. Our repository can be found on my Github.
- **Blockchain Network Virtualization (Capstone):** My Capstone team of five students worked with Sandia National Labs developing a project utilizing their Minimega. Our team used it to simulate a custom Ethereum network of miners and simulated transaction traffic occurring on the network. 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.