# 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: | Technologies |
| --- | --- |
| C / C++ | Git |
| Python | Keras |
| Golang | Distributed Tensorflow |
| Java | Machine Learning |
| Bash | Docker |
| | CUDA |
| **Advanced Coursework** | OpenMP / Pthreads |
| Adv. Topics in Deep Learning | MPI |
| Grad. Distributed Computing | OpenGL |
| Applied Parallel Computing | Bullet3 |
| Real-Time 3D Computer Graphics | 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 of 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 multiple 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 implement 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 tool. 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.