

# EVAN TAM

## SOFTWARE ENGINEER AT USEFULR

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I am very passionate about creating new inventions that will benefit society in the future. I am always intrigued and opened to trying new ideas.

Youtube: <http://youtu.be/uc6CfEbCXVA>

## Skills

C++

NODE JS

JAVASCRIPT

SWIFT

ANDROID

PYTHON

JAVA

COMPUTER VISION

POSTGRES SQL

MYSQL

SQLITE

MONGODB

HTML

CSS

JQUERY

SQL

## Education

San Diego State University-California State University  
Bachelors Computer Science 2015

Activities and Societies:  
ACM

## Employment

### Usefulr

Software Engineer (Founding Team Member)

IvaThat

- Led the development of a virtual assistant iOS application that allowed user to teach the assistant new behaviors without programming.
- Built with Node, Express, Passport, Postgres, PM2, NGINX, Lets Encrypt, Digital Ocean, Morgan, MySQLWorkBench, Postman, Swift, Alamofire, GoogleSignin
- Designed database architecture

BehaveOs Robotics

- BehaveOs is a proprietary AI engine that leverages aspects of reinforcement learning and hebbian learning which enables devices to be able to be taught with human interaction
- Developed distributed robot control logic and diagnostics
- Developed a Teachable Robot to demo that an off the self robotics platform can leverage BehaveOs to be able to have the ability to be able to be taught autonomous behaviors, built with Raspberry pi, Swift, C++, Python, OpenCv, Computer Vision, ASR
- Developed a Robotic Arm with lego mind storm to demonstrate that with BehaveOs, a person can teach an arm movement, similar to Baxter Robotics, just by moving it manually, built with Python, Swift

Postal Pocket

- Developed mail recognition and notification system
- Developed Front End Interface with Html, CSS, EJS(Embedded JavaScript), and JQuery
- Led the development of the image recognition system using OpenCV and C++
- Built with Node, Express, Passport, Socket.io, MongoDB, Sqlite, Node-Gyp, C++, OpenCv, DigitalOcean, Postman, Computer Vision, PM2, NGINX, Lets Encrypt

### San Diego State University

Machine Learning Researcher

Generated data set using DJI Phantom for 3D scene reconstruction

### Gimbal Inc.

Software Engineer Internship at Gimbal, Inc.

- Responsible for testing Gimbals Android framework using test suite.
- Tests involved testing battery life from beacon to Android app, maximum range of bluetooth signal, accuracy
- Enhanced Android testing framework
- Developed new tests

### Qualcomm CRD

Software Engineer Internship at Qualcomm

- Developed a Vision Based Target Tracking System using Snapdragon Technologies to allow autonomous following behavior for drones
- Worked with GStreamer library and wrote C++ to grab HSV video frames from drone to display on Android Application
- Wrote JNI wrappers to wrap GStreamer C++ to be able to talk to the Android Java UI layer
- Worked with QCT computer vision library to develop tracking algorithm
- Implemented Virtual JoySticks for Android Application to fly drone
- Was able to perform yaw, pitch, and roll motions with Virtual JoySticks and fly drone successfully using Android Application alone

### Qualcomm Labs

Software Engineering Intern at Qualcomm

- Worked and owned Android app that was used for the autonomous wheelchair project
- Implemented a framework to generate heat maps on Android
- Created a security feature using android's built in touch api, which stored the dimensions of your hand into Android's sqlite database. This allows access to the wheelchair Android application with five finger touch authentication
- Used Async-Http Android library to communicate with our PHP server's rest api to grab realtime data from micro controllers attached to the wheelchair
- Used AChartEngine Android library to create realtime graphs in order to monitor and diagnose the wheelchair

### Tricorder X-Prize

Program Manager/Software Engineer at SDSU X-Team

The focus of the SDSU X Team is to provide a solution for the Qualcomm Tricorder X Prize competition. My team is using an Android base platform to develop a Tricorder that can perform an accurate diagnosis. My responsibilities for this project involve coordinating with 10 software developers as well as developing an efficient UI on an Android Platform.

## Projects

HealthTrak

Worked with a team to create a health care webapp using Node.js, Express, PostgreSQL, and AngularJS for CS 532 Software Engineering. Responsible for interacting with and negotiating the terms with our "client", assigning tasks, conforming to agile practices, and more.

## Activities

Vice President of ACM

Responsible for communicating with the undergrad computer science students to inform them about speakers that were in the industry as well as helping create the event to host the speaker. Organized technology workshops for students.