



WORK EXPERIENCE

illumio

Summer 2015

- Implemented React D3 visualization to represent complex security rule data
- Internationalized entire product's customer facing product using react-intl
- Built tools to automate compatibility of the product's API with the product command line interface

Department of Defense - NSA Visual Analytics Research Group

Summer 2014

- Designed and implemented a parallel coordinates graph D3 visualization to represent complicated network data
- Identified and delivered numerous key improvements and features to an existing visualization suite to greatly increase usability and capability for analysts

Intelligent Signal Processing Laboratory, Korea University

Winter 2013-2014

- Utilized non-negative matrix factorization to separate noisy actigraph signals into source signals for use in sleep/awake state detection
- Implemented changes to sleep/awake detection algorithm with large improvements in detection rate

Department of Defense - NSA Red Team

Summer 2013

- Assisted in the design and development of a next generation call back
- Planned and created a VT220 telnet emulator to accurately render telnet data
- Designed and implemented an automated command scheduler to optimize the use of repeated commands



PROJECTS

A.P.Eye

A.P.Eye is a augmented reality **iOS app** that was **finalist at HackMIT**. Simply point your camera at an object around you, and A.P.Eye provides relevant, contextual connections to your favorite apps such as Uber, Fitbit, and Tinder. This system is extensible and designed to support many more APIs in the future.

Wildfire

Wildfire is a safety notification **iOS and Android app**. Users can post safety alerts which get sent out to other users nearby. It was accepted into the **FreeVentures 2015 class** and also into the **WilmerHale quickstart program**.

Nextile

The Nextile is a wearable prototype that I created with a small team which won **best hardware hack at CalHacks**. We used machine learning to convert raw sensor data from a tshirt to render a user's real time skeleton. We used two **Intel edisons** which sent sensor data to **firebase**. We also created a visualization of the user's skeleton using **Threejs**.

Handshake

Handshake is an iOS app that allows users to chat with other people in their area anonymously. It was built with **Objective-C, Parse, Firebase and the Facebook SDK**.

SyncSpin

Syncspin is a collaborative music voting web app for listening to music in a group setting. It also uses accelerometer data and visualizations to allow users to sense the excitement of the crowd listening to music. This app won the **Mashery API prize at HackGT** and was built using **MEAN stack**.



AWARDS

STOKES SCHOLARSHIP RECIPIENT

Competitive national scholarship awarded by the Department of Defense

FINALIST - HackMIT (Top 10)

HackMIT - Cambridge, MA 2015
A.P.Eye - An augmented reality iOS app that provides different API actions based on what your camera is pointed to

BEST HARDWARE HACK, BEST FIREBASE REALTIME HACK

CalHacks - Berkeley, CA 2014
Nextile - A motion capture shirt + web app with real time body modeling

MASHERY API PRIZE

HackGT - Atlanta, GA 2014
SyncSpin - Music voting web app with visualization for party excitement

SECOND PLACE PRIZE

Stokes Hackathon - Washington D.C. 2014
Ties - Android app that helps you keep in touch with people you care for

SECOND PLACE PRIZE

Berkeley Student Technology Council Web App Competition, 2013
StudyBuddy - A web app to help Berkeley students find study partners



SKILLS

PROFICIENT	EXPERIENCE WITH
Python	React
HTML/CSS	iOS - Objective C
Javascript/jQuery	C++
Java	C
Rails/Django	SQL
	MEAN Stack
	Android



EDUCATION

UNIVERSITY OF CALIFORNIA - BERKELEY

Pursuing a degree in Electrical Engineering and Computer Science
Expected graduation 2016

COURSEWORK

Machine Learning	Security
Operating Systems	Graphics
Databases	Machine Structures
Artificial Intelligence	Data Structures
Algorithms	Discrete Math
Software Engineering	



LEADERSHIP + ACTIVITIES

BERKE1337 - UC Berkeley CyberTeam

2016 Unix/Web Competition Team Member

The Daily Californian

Technical staff - Frontend and Infrastructure Developer
Staff Photographer

Habitat For Humanity

Community Outreach Team - 2015

Code the Change

President - 2014
Project Manager 2013-2014
General Member 2012-2013