

# **EDUCATION**

# UNIVERSITY OF CALIFORNIA, LOS ANGELES

BS IN COMPUTER SCIENCE Expected Spring 2017

#### **HONORS/SCHOLARSHIPS**

Upsilon Pi Epsilon Eta Kappa Nu Henry M. Showman Prize Gerald J. Popek Scholarship in Computer Science Eric and Peggy Johnson Scholarship in Engineering

#### MISSION SAN JOSE H.S.

Grad May 2013

# **SKILLS**

#### **LANGUAGES**

C++/C, MATLAB/Octave, HTML/CSS, Javascript

#### **TECHNOLOGIES**

Visual Studio / CLion, Git, React.js Shell/Bash, Arduino IDE AutoDesk, OpenCV

# **LINKS**

Github: /kfrankc LinkedIn: /kfrankc Medium: @kfrankc Goodreads: /kfrankc

# COURSEWORK

Artificial Intelligence
Machine Learning
Mathematical Modeling
Operating Systems
UNIX/Linux Programming
Database Systems
Functional Programming
Cybersecurity

# LEADERSHIP

## **Resident Assistant**

Fall 2015—present Responsible for a floor of 90 residents in UCLA Residential Dorms.

# **IDEA Hacks Organizer**

Fall 2015—Spring 2017 Sponsorship organizer of UCLA's Hardware Hackathon

# **Bruin Entrepreneurs**

Fall 2014—Spring 2015 Led incubator program for UCLA student entrepreneurs

# **EXPERIENCE**

## JET PROPULSION LABORATORY

COMPUTER VISION RESEARCH INTERN

- Pasadena, CA | June 2015 June 2016
- > Research Intern under Dr. Thomas Lu (349B)
- > Spearheaded frame by frame tracking of IR multi-bandwidth infrared images
- > Achieved 90 % accuracy for segmenting targets using neural network
- > Published two papers at SPIE conferences

# CENTER FOR VISION, COGNITION, LEARNING, AND AUTONOMY

UNDERGRADUATE RESEARCHER

Los Angeles, CA | March 2016 — April 2017

- > Undergraduate researcher for Dr. Song-Chun Zhu
- > Research in causal relationships, fluent extraction, & learning
- > Built detection + tracking modules in OpenCV for teaching robots to fold shirts
- > Submitted papers to NIPS and IJCAI conferences.

#### WORKDAY

APPLICATION DEVELOPMENT INTERN

Pleasanton, CA | June 2016 — present

- > Implemented Tax Location Mapping Reports as part of Workday 28 Release.
- > Created get/put APIs for Workday Web Services

#### **TABOOLA**

SOFTWARE ENGINEERING INTERN

Los Angeles, CA | March — June 2016

- > Implemented user authentication systems using React & Node.js
- > Built modules to communicate with Taboola Backstage API from scratch

# **CS 88S: Undergraduate Student Initiated Education (USIE)**

STUDENT FACILITATOR

Los Angeles, CA | Sept 2016 – present

- > Designed a 10-week undergraduate computer science seminar to introduce students to cybersecurity fundamentals & protecting themselves in cyberspace
- > Reached an international audience, with more than 1400 people subscribed to my weekly email updates on topics and relevant articles covered in the course

#### THE DAILY BRUIN

ONLINE PROJECT MANAGER

Los Angeles, CA | Sept 2014 — March 2016

- > Spearheaded complete re-design of Spectrum, Daily Bruin's photo blog.
- > Presented workshop on Sublime + Git tools for new incoming Online DB staff.

# **PROJECTS**

## **IEEE NATCAR**

Los Angeles CA | Sept 2014 — June 2015

Design, build, & race an autonomous RC car on tracks marked by 1"-wide white tape **1st place** at UC Davis NATCAR Competition of 40+ teams,

3rd place at UCSD Grand PrIEEE Competition out of 30+ teams

## **ROBOHOME** [IDEA HACKS 2016]

Los Angeles CA | Feb 2016

Created model home with door, lights, shower, and TV that can be remotely controlled using Myo armband, Pebble, Smartphone, and laptop.

1st Place out of 200+ competitors

## **MYODRONE** [PENNAPPS 2015]

Philadelphia, MA | Jan 2014

Built a selfie-drone controlled using the Myo armband + Intel Edison **Top 30** out of 1000+ competitors

# **PUBLICATIONS**

2016 SPIE Cross-Correlation and Image Alignment for Multi-Band IR Sensors
 2016 Unsupervised Learning of Fluents from Human Demonstrations

2017 SPIE Intelligent multi-spectral IR image segmentation

2016 Learning Human Utility from Video Demonstrations for Deductive

Planning in Robotics