

# Nelson Liu

nelson@nelsonliu.me  
nelsonliu.me  
linkedin.com/in/nelsonliu1  
github.com/nelson-liu

## TECHNICAL SKILLS

### PROGRAMMING LANGUAGES

Java•Python•Javascript•Scheme

### FRAMEWORKS / STACKS

Flask•LAMP Stack

### FRONT-END DEVELOPMENT

HTML5•CSS3•Javascript•jQuery•AJAX

### TOOLS / UTILITIES

BASH•Git•SVN•GNU EMACS

## EDUCATION

### TROY HIGH SCHOOL

Fullerton, CA

Attended from 2011 - 2015 (Projected)

## COURSEWORK

### TROY HIGH SCHOOL

#### Advanced Placement Courses

Computer Science • English • US History •  
Physics B • Calculus AB/ BC • Economics •  
Government • Literature

## ACHIEVEMENTS

**2015 - First Place, Dave Wittry  
Memorial Programming Competition**

**2015 - First Place, California State  
Los Angeles ProgFest**

**2015 - Top 30 of 300+ projects,  
PennApps Winter 2015**

**2014 - Top 20 out of 120+ projects,  
HackPrinceton Fall 2014**

**2014 - Winner, Improving MIT Award,  
MIT BitComp 2014**

**2014 - National Merit Commended  
Scholar**

**2014 - First Place, Science Olympiad  
National Tournament • Member of  
Troy High Science Olympiad Team**

**2013 - Part One / Part Two Winner,  
IBM Master the Mainframe  
Competition**

**2013 - Second Place, Dave Wittry  
Memorial Programming Competition**

**2013 - Second Place, California State  
Los Angeles ProgFest**

## EXPERIENCE

### MIT CSAIL INFOLAB GROUP | Research Assistant

June 2013 - September 2014 | Cambridge, MA

- Worked with the START Natural Language Processing System and its backend, Omnibase.
- Wrote Scheme scripts to dynamically extract JPL and U.S. Election Atlas data for use in Omnibase.

### UCSB BREN KELLER LAB | Research Assistant

June 2014 - July 2014 | Santa Barbara, CA

- Developed models to predict and model hydraulic fracture propagation in porous shale formations.

## SOFTWARE PROJECTS

**BITSTATION** | Winner of MIT Bitcomp Improving MIT Award  
Summer 2014 | An online Bitcoin wallet for MIT Students

- Features certificate login, address books, and transaction annotation to promote peer-to-peer transactions among MIT students.
- Developed with Ruby on Rails in the span of 1 month.

**MYODRONE** | Top 30 / 300+ projects, PennApps Winter 2015  
January 2015 | An intuitive method of wearable drone control.

- Team lead role with focus on back-end development.
- Used the Thalmic Labs Myo armband and arm gestures to control a Parrot Drone with 8 degrees of movement.

**FALANGAFONE** | Top 20/120+ projects, HackPrinceton Fall 2014  
November 2014 | An gesture-controlled music editing tool.

- Used the Leap Motion to enable live editing of .mp3 and other sound files via finger and hand gestures.
- Developed a Flask backend as well as a web front-end for the application, used the Pyo library to modify music on the fly.

## HARDWARE PROJECTS

**OMNITUENS** | Currently in development

Spring 2015 | A CV powered malaria diagnosis tool.

- Uses the Raspberry Pi, an onboard camera, and computer vision to perform malaria cell counts on blood smears.