# **Nelson Liu**

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## **TECHNICAL SKILLS**

#### **PROGRAMMING LANGUAGES**

Java•Python•Javascript•Scheme

#### FRAMEWORKS / STACKS

Flask• Meteor • Ruby on Rails • Node.JS / MEAN Stack

#### FRONT-END DEVELOPMENT

HTML5•CSS3•Javascript,JQuery

#### **BACK-END DEVELOPMENT**

AJAX•MongoDB

**TOOLS / UTILITIES** 

BASH•Git•SVN•GNU EMACS

## **EDUCATION**

## University of Washington, Seattle

Seattle. WA

**Computer Science and Statistics** 

## **ACHIEVEMENTS**

2015 - Winner, Hack The Dot Seattle

2015 - Finalist, AngelHack Seattle

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

2013 - Part One / Part Two Winner.

IBM Master the Mainframe

Competition

# SOFTWARE PROJECTS

### **SoundHop** | Finalist, AngelHack Seattle 2015 Summer 2015 | P2P Speaker System.

- Utilized Firebase to sync music playback across multiple devices, accounting for network lag as well.
- Worked with several other team members to develop the Android backend. Also worked on the application's material UI / UX.

# **WORK EXPERIENCE**

#### UNIVERSITY OF WASHINGTON CSE

#### Wireless Lab Research Assistant

June 2015 - Present | Seattle, WA

 Working with ambient backscatter to wirelessly power devices and embedded systems.

#### **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 (CONT.)

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.

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-topeer transactions among MIT students.
- Developed with Ruby on Rails in the span of 1 month.