# **David Tsui**

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#### Education

University of Pittsburgh. Class of 2017.

B.S. Computer Science Cumulative GPA: 3.56 Major GPA: 3.75

#### **Relevant Coursework**

- Introduction to Systems Software
- Introduction to Operating Systems
- Software Quality Assurance
- Introduction to Computer Vision

- Algorithm Implementation
- Fundamentals of Data Science
- Data Structures
- Natural Language Processing

#### **Skills**

Languages: Java, Python, JavaScript, C, SQL, Swift

Software: Eclipse, XCode, Matlab

Frameworks/Platforms: ReactJS, Redux, D3, NodeJS, MongoDB, Express, AWS, JUnit, Git, OpenCV

**Work Experience** 

# NASA Jet Propulsion Laboratory – Software Engineering Intern, Summer 2016

- Developed modelling editor web app for system engineers working on the Europa flight system
- Created a Latex parser and editor for autocomplete inputs within the web app
- Used React, Redux, and D3 to generate context aware variables conforming to different system models

# Advanced Data Management Technologies Laboratory, Spring 2016 - Current

- Developed indoor location based iOS application using Swift
- Used Bluetooth iBeacon sensors to track current user's location and calculate shortest path to destination
- Grabbed map area and data from web application through simple RESTful API calls in JSON

### Bentley Systems – Software Engineering Intern, Summer 2015

- Worked on cross platform development for iOS/Android utilizing Javascript for frontend development combined with C++ for graphics and data rendering
- Extended display functionalities to Bentley's ProjectWise app and helped it render properly for iOS and Android

### Occular Biomechanics Laboratory – Research Programmer, Summer 2015

- Worked with open-source environment FIJI and Java to provide scripts to process scanned images on optic nerves of laboratory animals
- Developed scripts in Java to check for repeatability of markers on scanned images
- Developed scripts in Java to handle input from excel sheets and manipulate excel sheet data
- Worked with Matlab scripts to generate a GUI to view images in 3D space

### Lumoq – Cofounder, September 2013 – April 2014

- Founded a patent-pending (U.S. Application No. 62/015,720;) startup that partnered with brick and mortar stores to provide a loyalty reward program through a mobile application and NFC technology, similar to Apple Pay and Google Wallet
- Went door to door at local businesses around the Pittsburgh area to promote the app
- Finalist at the Pitt Big Idea Competition in 2015

#### Volunteer

### Tzu Chi Academy of Pittsburgh – Teacher's Assistant, September 2014– present

• Instructs and coordinates students on a weekly basis on various Chinese lion dance and Chinese Yo-Yo skills and routines