Chenyang (Eric) Liu

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EDUCATION

NORTHEASTERN UNIVERSITY | Candidate for Combined BS/MS in Computer Engineering

GPA: 3.97 | Graduation Date: May 2019

Honors: University Scholars Program **(Top 1-2%)** | Gordon CenSISS Scholar | Dean's List | National Merit Scholar
Activities: **First Year Mentor** - College of Engineering | **Husky Ambassador** | **Honors Ambassador**
Courses: Object Oriented Design | Computer Algorithms | Digital Logic Design | Computer Networks | Differential Equations | Linear Algebra | Humanoid Robotics | Stochastic Processes and Random Variables

EXPERIENCE

APPLE | Software Engineering Co-op — Jan. '16 - Aug. '16

C++, Scala, Matlab, OpenCV, Gtest, CMake, Akka-Http, Git

- Led project to design new computer vision algorithms to assess the quality of Apple Maps at a large scale
- Used **Matlab** , **C++** , and **OpenCV** for design, implementation, and integration of a new modular and fully tested toolkit
- Migrated old C++ web service to **Scala** and created **Swagger** documented **API** for teams throughout Maps to use
- Handled multipart requests/responses with **Akka-http** to expose C++ algorithms using **JNI bridge**

HUSKYHACKS | Co-Founder — Feb. '16 - Present

- Worked with team of 3 students to create **Northeastern's first hackathon** and received **250+ applications in one week**
- Designed marketing materials and established direction/goals for HuskyHacks 2.0 in Fall 2016

TEXTRON SYSTEMS | Systems Engineering Intern — June '15 - Aug. '15

Matlab, Caffe

- Used **MATLAB** to implement a **Feed Forward** and **Convolutional Neural Network** from scratch
- Classified images from data set of 18,000+ images into 20 classes with **98% accuracy** for target detection

SICA LAB | Research Assistant — Oct. '14 – Aug. '15

C++, C, Matlab, Mex

- Synchronized **C++** and **C** functions with **MATLAB** using the **Mex** interface
- Operated **PNAx** Network Analyzer to study phase and amplitude of five transceivers over time
- Wrote **MATLAB** scripts to **automate data collection** and analysis for radar calibration

PROJECTS

NORTHEASTERN SCHEDULER

Python, Flask, PostgreSQL, Redis, Swagger, BeautifulSoup, React, Git, Heroku

- Scraped Northeastern University's class schedules using **Python** and stored data in **PostgreSQL** database
- Used **Flask** to create **Swagger** documented **API** for course, schedule, and professor information
- Implemented **search functionality** for users to dynamically filter and rank results
- Ongoing development of front-end using **React.js**

RUBIK'S CUBE ROBOT | Co-Designer

Python, C, Arduino, OpenCV, Solidworks

- Developed optimized 4-arm control system in **Arduino** and **Python**
- Used **OpenCV** for color detection and Kociemba Algorithm for the solution finder
- Coordinated **Raspberry Pi** and **Arduino** communication for movements of custom, **3D printed hardware**

MISCELLANEOUS

Hackathons: HackNY (3rd Place, Best use of AWS), BigRed Hacks, CalHacks, YHacks
Competitive Programming: HackerRank - **99th percentile** of **83,000+** users

SKILLS AND INTERESTS

Proficient: Python • C++ • Java • MATLAB **Familiar:** C • Scala • Verilog • Arduino
Technologies: OpenCV • Gtest • Flask • PostgreSQL • Akka-http • Bootstrap • Photoshop • Sony Vegas
Other: Best Rubik's Cube Time: 14s • Fluent in Chinese • Volunteer at South Boston Boys & Girls club