

EDUCATION

University of Southern California, Los Angeles, CA

May 2017

Bachelor of Science, Computer Science

Cumulative GPA: **3.98** (100+ Units)

Dean's Scholarship – Awarded with Full USC Tuition (50K+/Year)

Research Funding – Awarded by University of Washington to improve the BGP network

Masters in CS – Accepted to accelerated 1-Year Masters Program at USC for Computer Science – Class of 2018

TECHNICAL SKILLS

Programming Languages & Software:

Proficient: C++ **Working Knowledge:** Python, Bash, Git, Nagios

USC Certification Classes:

Ethical Hacking, Mobile App Development

WORK EXPERIENCE

Undergraduate TA – Data Structures C++ Course (USC)

Summer 2015

- *Topics Covered* – Red Black Trees, Hash Tables, Sorts, Searches, Traversals, Inheritance, Polymorphism, Stacks, Queues, Operator Overloading, QT, Iterators, Linked Lists, Memory Allocation, Run Time Analysis
- Held office hours for assisting students with labs, projects, and creating all mentioned data structures ground-up

Research Internship – Software Engineering (USC/University of Washington)

Summer 2015

BGP Network

- Created system to monitor BGP connections and BGP Autonomous Systems through Nagios, Quagga, SNMP
- Configured BGP Muxes to run developed monitoring bash scripts, and announcement experiments on BGP
- Scripts and software implemented continuously runs as research experiments are run on BGP routing protocols

Improving Email Reliability & Performance

- Created an automated pipeline for all USC emails to be analyzed
- Developed a program to detect delay by intermediate servers, and automated analysis report for emails

Police Cadet – *Second in Lead Command*

January 2013 – August 2014

Santa Monica College Police Department

- Operated equipped Police Vehicles and Police Tactical Gear; conducted background searches & fingerprinting
- Trained 8 new-hires; entrusted with acclimating new Police Cadets with training, policies, standards, and ethics
- Created and maintained record database of citations and violations

PROJECTS

Ship Together

- Developed iPhone App prototype in which users join a collective Amazon shopping cart
- Each user in the collective cart contributes towards the \$35 minimum for free shipping

Online Retail System

- Created different products using inheritance and polymorphism
- Developed a Splay Tree to provide fast search functionality of products
- Developed Red Black tree to be used as a map, and implemented in-order traversal iterator
- Implemented Dijkstra's Algorithm to find similarities between users to offer product suggestions
- Implemented a Hashing algorithm to encrypt and store hashed passwords
- Implemented GUI using Qt in C++

Image Processing

- Overlay green screen image on any background; through each RGB pixel layer
- Program adaptable to any color 'green screen' background, with any added tints/shades/imperfections

Audio Processing

- Automatically download user selected files from internet database
- Detected operating system, executed system commands to manipulate audio files to user specifications

RECENT ACTIVITIES

Leadership: Co-Founder of a Petition to bring Men's Soccer to USC – over 1,000 signatures (Supported by Annenberg)

USC Clubs: ACM, IEEE, Brazilian Jiu Jitsu, Street Dance Society

Outlook on life: Outside of school I enjoy traveling in search of incredible surf, scuba diving, rock climbing, & acroyoga