

Shang-Hung (Sean) Tsai

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EDUCATION

New York University; New York, NY

Expected December 2018

Master of Science, Computer Science

GPA: 3.9/4.0

Selected Coursework: Algorithms, Operating Systems, Database Systems, Computer Networks,
Network Security, Machine Learning, Artificial Intelligence, Big Data

Boston University; Boston, MA

May 2016

Bachelor of Arts, Economics, Minor in Computer Science, Summa Cum Laude

GPA: 3.93/4.0

Selected Coursework: Algorithms, Data Structures, Discrete Math, Software Engineering, Distributed Systems

Honors: Dean's List (2012-2016, 8 semesters)

TECHNICAL SKILLS

- **Programming Languages:** Java, Python, C/C++, SQL, JavaScript, PHP, Go
- **Web Development:** LAMP, MEAN, Django, HTML, CSS
- **Computer Networks:** TCP/IP, Socket programming, Scapy, Wireshark, tcpdump, Quagga
- **Other:** Git/Github, Docker, OpenCV, Latex, Weka, Stata

WORK EXPERIENCE

High Speed Networking Lab at NYU; Brooklyn, NY

September – December 2016

Graduate Research Assistant

- Evaluated success rate and performance of a network failure recovery routing system
- Implemented a network simulation environment using Docker containers and Quagga routing suite
- Developed and performed experiments regarding connectivity and speed using C and Scapy
- Analyzed test results and provided feedbacks to improve the design of the network recovery system

Boston University Department of Computer Science; Boston, MA

September 2015 – May 2016

Database and Data Mining Teaching Assistant

- Graded weekly assignments related to Python programming, SQL query, and Weka data mining techniques
- Answered students' questions regarding programming and databases principles
- Provided feedbacks to improve lectures and homework assignments

PROJECTS

Ecommerce Management System (Django, MySQL, Apache, Python)

December 2017 – Present

- Develop and maintain an Ecommerce internal transaction management system using Django framework
- Build relational databases to manage customer, product, order and inventory information
- Implement functionalities that generate inventory and revenue reports

Music Streaming Service (Linux, Apache, MySQL, PHP)

November – December 2017

- Designed and implemented an online music streaming application using LAMP stack
- Built relational databases that allows track searching and playlist creating functionalities within the app
- Developed a music recommendation system based on users' preference records (follows, likes, ratings etc.)

Face Recognition (C++, OpenCV)

November – December 2017

- Performed human face recognition via an implementation of Eigenface method with 80% success rate
- Researched and developed parameter benchmarks to achieve maximum overall performance

Purchase Order Consolidation (Python)

February 2017

- Developed a program that transforms order information across ecommerce platforms into comprehensive reports
- Designed output Excel spreadsheets that contain filters including buyer, payment method, special requests etc.

WikiGeo (MongoDB, Express, Angular.js, Node.js)

January 2016 – May 2016

- Developed a web application based on geotags of users utilizing Google Maps API and MediaWiki API
- Granted users access to buildings and events information in the neighborhood by producing a pinned map
- Explored potential in engaging third-party user-generated contents to provide further relevant information