

William Tsao

40 Newport Parkway, Jersey City, NJ 07310

(609) 937-3562

williamtsao1202@gmail.com

Personal statement

A passionate computer science student graduating NYU in May 2018. Experienced in working in Agile environment. Fast learner with great attention to details. Passionate about writing clean, reusable code and developing elegant and performant algorithms. Focused mostly on backend development. Experienced in both relational and non-relational database. Familiar with basic frontend technologies and cloud computing.

Core skills

- Strong Python and Javascript, familiar with Java, C, and PHP
- Experienced in MySQL and MongoDB
- Familiar with AWS EC2
- Familiar with parallel computing using OpenMP, MPI, and CUDA
- Familiar with principles in network technologies
- Familiar with application security and basic cryptography

Work history

Intern Developer – Photoshelter, New York

(June 2017 – Aug 2017)

Worked on Automated UI Testing with WebdriverIO (Javascript). Using the Page Object Model to create reusable steps in testing. SauceLabs and BrowserStack integration.

Duties

- Setting up the repository and environment for the project.
- Writing Test Cases
- Coding reusable Page Objects, as well as the Tests
- Consolidate Browser Support policy with the team

- Teach QA personnel basic Javascript so they can contribute and eventually take over the project.
- Participate in Code Review

Education

New York University

(2014 – 2018)

BA in Computer Science GPA 3.787

Relevant Courses:

Data Structure: Basic concepts of Data Structure with projects written in Java.

Basic Algorithms: Big-O, dynamic programming, greedy algorithms, graph theory and more.

Computer System Organization: Machine Language (assembly), addressing logic and pointers. Projects were written in C.

Operating System: Process scheduling, deadlocks, memory management (virtual memory), file system, cache eviction algorithms, etc. Projects were written in Java.

Parallel Computing: Parallel computing for distributed-memory (MPI), shared-memory (OpenMP), and GPU (CUDA). Projects were written in C.

Applied Internet Technology: Full stack micro web app built with Node.js (Express), and MongoDB. Deployed with Heroku (<https://infinite-atoll-99335.herokuapp.com>)

Large Scale Web Application: Course focused on scaling up a data-centric web app. Introduced data partitioning (sharding), RPC, RESTful API, monitoring, load balancing and cloud technologies. Final project involved a sharded Django/mysql web app deployed on EC2 (<https://streeTunes.williamtsao.com/streeTunes>).

Computer Network: Course introduced the 5 layers of the Internet from Application to Physical. Discussed protocols at each layer: sliding window, congestion control, routing protocol, ALOHA, as well as P2P applications, IoT, and software-defined networking.

Intro to Computer Security (current course): Operating system security, network security, web security, security economics and security psychology. Course projects will focus both on writing secure code and exploiting insecure code.

References

Please do not hesitate to contact me if you require references from any of my previous employers or professors.