Weixin Tan

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Education

Stony Brook University Aug. 2017 - Dec. 2020
B.S. Computer Science & Applied Mathematics and Statistic *GPA: 3.7*

Work Experience

Zebra Technologies Holtsville, NY
Software Engineering Intern - Zebra Retail Solutions (Android Development) June 2020 - Aug. 2020

- Built a dynamic SPA in **C#** that generates a form based on a configurable file, allowing users to edit and export data as configuration files for apps that are running on Zebra's scanner devices or servers.
- Used **Blazor** and **Bootstrap** to design and implement reusable Razor Components such as Modal, Dropdown, Switcher, Array, etc.
- Implemented general editing functionalities such as undo, reset, load, save, and status display for the application, making it easier for the marketing team and account managers to use the tool.

SmartThings Manhattan, NY
Back-End Software Engineering Intern - Audio/Video Platform Team May 2019 - Aug. 2019

- Implemented Python scripts for an internal testing framework and added new features to multiple internal tools using **Python** and **Bash**.
- Used **Memcached** to reduce database access and refactored a periodic task to decrease execution time and CPU load, improving performance up to 40%.
- Migrated data inside the **MariaDB** database from utf8mb3 to utf8mb4, allowing the storage of emojis and Non-English characters.
- Modified one of the streaming API endpoints in the production environment to resolve a resolution issue with multiple cameras streaming concurrently in the same app.

Stony Brook University Stony Brook, NY
Undergraduate Teaching Assistant – Data Structures Feb. 2019 – May 2019

- Hosted 5 hours of office hours every week for class materials and assignments in **Java**. Also held review sessions before midterms and final.
- Helped students with topics such as LinkedList, Stack, Binary Tree, Heap, etc. and answered questions on Piazza.

Projects

Algorithm Visualizer
*A **Java** application that emulates the decision of clustering or classification algorithms at each iteration through graphical representation.*

- Implemented K-Mean for clustering algorithm and linear regression for classification algorithm.
- Made application multithreaded to ensure a responsive UI during data processing and algorithm iteration.
- Created UML class and sequence diagrams for designing and wrote unit tests for individual components of the application.

Honker
A Twitter-like social media platform that is scaled to supports 1000+ users concurrently with an average of 300-700ms response time.

- Followed a micro-service architecture and different micro-services communicated with each other either through HTTP communication or message communication using **RabbitMQ**.
- Utilized **Nginx** as a reverse proxy and deployed different services to multiple servers on Google Cloud Engine.
- Implemented tweet-management service, media-management service, and part of API entry point in **Node.Js** and **Express.JS**.
- Stored all data in **MongoDB** and periodically synced tweet-data to **Elasticsearch** for more efficient full-text search.

Skills

Languages:	Java, JavaScript, C#, Python, C, SQL
Tools/Frameworks:	Git, SVN, Linux/Unix, Docker, MongoDB, MySQL, Node.JS, Express.JS, RabbitMQ, ElasticSearch, ASP.NET, Blazor, JavaFX