Michael Ha

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Education

Metropolitan State University Saint Paul, MN

Bachelor of Science in Computer Science *Graduation Date: August 2023*

- Dean's List: Achieved Dean's List recognition for three consecutive semesters.
- GPA: 3.63

Experience

Metropolitan State University Saint Paul, MN

Software Engineer Intern *June 2023 - August 2023*

- Utilized agile methodologies such as Scrum, with weekly Scrum meetings, GitHub for codebase management, and Trello for product management, which led to the successful completion of **20+ new features and bug fixes** within the fast-paced development workflow
- mproved the user experience for more than 20 users by resolving issues related to redirection from login and account creation pages, ensuring a smoother application navigation and enhancing user-friendliness.
- Transformed **static data reports into dynamic database-driven reports**, and eliminating the need for manual updates, leading to a **25% increase in report accuracy**
- Integrated **REST APIs**, enabling seamless data exchange for two cross-functional teams and optimizing data utilization for their respective projects
- Implemented an **in-cell editing feature exclusively for administrators**, reducing data editing time by **50%** and enhancing the admin experience, resulting in a more efficient and user-friendly admin experience
- Technologies used: PHP, MySQL, Javascript, jQuery

Projects

Threaded Chat Server Github Repository

- Utilized **checksum verification through MD5 hashing**, resulting in a **99.9% data integrity rate** during message transmission, effectively preventing data corruption and ensuring seamless communication
- Leveraged **multi-threading** to optimize server performance, allowing the server to handle up to **50 tested concurrent client connections**

Transformers Sentiment Analysis Github Repository

- Trained a **BERT-based sentiment analysis model**, achieving a high **accuracy rate of 94%** on the test dataset, demonstrating the model's effectiveness in sentiment classification
- Conducted **comparative analysis** between the developed **Transformers-based sentiment analysis model** and a **Naive Bayes classifier**, demonstrating a 13% increase in accuracy

Dealership Inventory Management System Github Repository

- Developed a graphical user interface (GUI) and seamlessly integrated it with the backend functions, facilitating thorough backend testing by other team members and **expediting the development process by 20%**
- Implemented **JSON and XML parsers**, including the **GSON parser for JSON**, to efficiently handle inventory data, resulting in a **30% reduction in data processing time**, and implemented a **JSON export feature** to safeguard data upon exiting the software, ensuring data preservation
- Simplified inventory management by updating the GUI to allow for easy vehicle additions and removals via an **input form**, which eliminated the need for software reloads and **saved users an average of 5 minutes per task**

Technical Skills

Programming Languages: Java, Python, C, C++, HTML, CSS, Javascript
Technologies: React, MySQL, MongoDB, Node.js, Express, Mongoose, Git, REST