Megan Tran

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WORK EXPERIENCE

Machine Learning Research Assistant, SHIELD Research Group, Tampa, FL — May 2024 – Present

- Leverage data science and exploratory data analysis (EDA) with Python, SQL, and Excel (i.e. feature engineering) to uncover and interpret insights into a structured dataset of 3000+ concussion patients.
- Applied cleaning, statistical analyses, and preprocessing steps on dataset for 4+ machine learning algorithms to ensure consistent and accurate results.
- Present data analytics in weekly meetings, fostering a collaborative environment among the 5+-person team and improving communication skills.

Undergraduate Computational Chemistry Research Assistant, van der Vaart Research Group, Tampa, FL — Sept. 2023 – May 2024

- Developed Shell and Python scripts on Linux to automate data collection and analysis for 26 DNA simulations, achieving 90% accuracy.
- Involved in requirement analysis for research project by defining simulation parameters and documenting DNA behaviors, ensuring that research goals were met which resulted in 80% improvement in project efficiency.
- Collaborated with 5 team members to identify trends from large datasets and troubleshoot debugging issues via access control.

PROJECTS

Medical Service Chat App - Java — Mar. 2025

- Enhanced user engagement by 50% with the implementation with interactive menu.
- Developed a real-time Java chat application, improving user support interactions by 30% through using TCP sockets for multiple connections.
- Increased code maintainability by using Git for version control, reducing deployment errors by 60% through multiple organized commits.

Honeypot API – MongoDB, Node.js, Express.js — Jan. 2025

- Implemented CRUD operations with question dataset within 80 ms by applying backend programming languages.
- Improved API response time by 15% with the use of fast routing library Express.js.
- Achieved 100% success in maintaining the API on local server and retaining the most recent data using MongoDB.

EDUCATION

University of South Florida

Pathway to Computing Certificate + Master's in Computer Science Student — Anticipated Graduation: May 2027

Cumulative GPA: 4.00

University of South Florida

Bachelor of Science in Biomedical Sciences and Psychology, *summa cum laude* — May 2024

Cumulative GPA: 3.94

Relevant Coursework: Discrete Structures, C Programming, Data Structures, Algorithms, Object- Oriented Programming, Computer System Essentials, Calculus 1 – 3, Differential Equations, Physics 1 with Calc + Lab

SKILLS

Languages/Technologies: Python, C, C++, SQL, Java, JavaScript, C#, Git, Linux

LEADERSHIP AND AFFILIATIONS

Member, Girls Who Code, USF — Feb. 2023 – Present

Member, Toastmasters, South Tampa Chapter — Sept. 2022 – Aug. 2023