Hanna Jiang

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Education

University of Massachusetts, Amherst   **Expected Fall 2024**
Bachelor of Science in Computer Science and Neuroscience   GPA: 3.93

Awards: Dean's List Honors, $12,800 Sherwood Delaney Scholarship

Selected Coursework: Machine Learning, Artificial Intelligence, Software Engineering, Programming   Methodology, Algorithms, Data Structures, Probability, Statistics, Multivariable Calculus, Linear Algebra

Technical Skills

Languages: Python, Java, C/C++ , JavaScript, TypeScript, HTML/CSS, SQL, R

Libraries: Pandas, PyTorch, TensorFlow, NumPy, Matplotlib, OpenCV, SciPy, Scikit-Learn
Tools and Frameworks: ReactJS, NodeJS, Flask, Django, Git, Docker, Microsoft Azure, Postman, CSS/HTML, Rest API

Experience

Lab for Advanced Systems Software and Sleep, UMass Amherst   **June 2023 – Aug 2023**
Software Engineering Intern   Amherst, MA

- Developed a data analytics and visualization web dashboard using Streamlit to help users study their sleep data.
- Organized and analyzed sleep data by using Pandas dataframes and generated charts using Matplotlib and Plotly.
- Managed and organized participant data using REDCap and executed data quality checks using SQL.

Lab for Internet-scale Distributed Systems, UMass Amherst   **June 2023 – August 2023**
Undergraduate Research Volunteer   Remote

- Spearheaded the development of Instant-NGP, innovatively improving real-time training for Neural Radiance Fields (NeRF) and amplifying the efficiency of novel view synthesis in Ringmaster under Dr. Ramesh Sitaraman.
- Engineered an effective algorithm and compact neural neural network, substantially increasing the training and rendering speed, while successfully implementing a scalable multi-resolution hash encoding method.

Neuro Learning and Performance Lab, UMass Amherst   **December 2021 – May 2022**
Undergraduate Research Assistant   Amherst, MA

- Developed and implemented machine learning models and Bayesian inference techniques using MATLAB and Python to analyze eye-tracking and multimodal data in a cognitive science lab.
- Conducted comprehensive data preprocessing, statistical analysis, and interpreted complex findings to illuminate cognitive behaviors and decision-making processes.

Leadership

Build UMass   **February 2022 – Present**
Product Manager   Amherst, MA

- Collaborated with local businesses to guide 6 software engineers to design and create scalable technological projects.
- Utilized Figma, React, and Flask to convert security monitoring system from web application to mobile application.
- Conducted weekly team meetings to discuss future directions and areas of improvement.

Manning College of Information and Computer Science   **February 2024– Present**
Teaching Assistant   Amherst, MA

- Led 50-person weekly discussion sections reviewing time complexity, algorithmic paradigms, greedy, divide and conquer, dynamic programming, network flow, NP-completeness.
- Offer one-on-one assistance during weekly office hours and resolve questions and doubt in online question forum.

UMass Machine Learning Club   **June 2023 – Present**
Marketing Coordinator   Amherst, MA

- Spearheaded revival of club Instagram and email through informative weekly posts to grow membership base by 300%.
- Pioneered inclusion initiatives and project-based learning to meet students at their skill levels and foster community.
- Utilized Figma, React, and Flask to convert security monitoring system from web application to mobile application.