Hanna Jiang

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Education

University of Massachusetts, Amherst **Expected Fall 2024**
Bachelor of Science in Computer Science and Neuroscience GPA: 3.941

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

Selected Coursework: Machine Learning, Artificial Intelligence, Software Engineering, Database Design, Game Theory, Game Programming, Programming Methodology, System Principles, 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: AWS, Azure, ReactJS, NodeJS, Flask, Django, Git, Docker, Postman, CSS/HTML, Rest API

Experience

Amazon Web Services **June 2024 – Aug 2024**
Software Development Intern Seattle, WA

- Collaborated with ELB Orchestration team to design and implement diagnostic tools that resolved throttling issues.
- Created Java scripts to pull from data source CloudWatch using AWS Lambda and JDK to give throttle rule suggestions.
- Utilized various AWS tools such as Lambda, CloudWatch, CloudFormation, and Grafana to develop 5 new dashboards onboarded to new infrastructure displaying real time metrics with monthly savings of $1 million.

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

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

- Collaborated with one professor, four undergraduates, and two graduate students to run the logistics of the undergraduate algorithms and design course
- 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.