Hanna Jiang

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EDUCATION

University of Massachusetts Amherst Amherst, MA

BS in Computer Science *Expected: December 2024*

- GPA: 3.94/4.00
- *Awards: $12, 800 Sherwood Delaney Scholarship, $7, 200 John and Abigail Adams Scholarship*
- *Organizations: ACM Machine Learning Club (Marketing Coordinator), Rewriting the Code*
- Relevant Coursework: Machine Learning, Artificial Intelligence, Game Theory, Software Engineering, Web Programming, Database Design, Game Programming, Programming Methodology, Computer Systems, Algorithms, Data Structures, Object Oriented Programming, Probability and Statistics, Multivariable Calculus, Linear Algebra

University of Massachusetts Amherst Amherst, MA

MS in Computer Science, Data Science Concentration *Expected: December 2025*

- Accepted into Accelerated Master's Program.

EXPERIENCE

Amazon Web Services June 2024 – August 2024

Software Development Intern *Seattle, WA*

- Collaborated with ELB Orchestration team to design and implement diagnostic tools that resolve throttling issues.
- Created Java package for automated throttling button that reads from CloudWatch using AWS services such as Lambda, API Gateway, and JDK to give informed 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 across all regions.

Lab for Advanced Sleep Software and Sleep, UMass Amherst June 2023 – August 2023

Software Engineering Intern *Amherst, MA*

- Developed a data analytics and visualization web dashboard using Stremlit to help users study and analyze their sleep data.
- Organized and analyzed sleep data by using Pandas data frames and garneted charts by 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

Software Engineering Intern *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 network, substantially increasing 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

Software Engineering Intern *Remote*

- Developed and implemented machine learning models and Bayesian inference techniques using MATLAB and PyTorch 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 rapid decision-making processes.

PROJECTS

Schedule Builder Website | *JavaScript, Python, Next.js, Flask MongoDB, React*

- Collaborated in a team to develop a full-stack JavaScript schedule builder website utilizing Agile methodologies.
- As part of full stack integration team, designed and implemented front-end UI in React and bridged database interactions with MongoDB to draw from past course Syllabus' while ensuring integration between frontend and backend with Express.js.
- *Developed and implemented a no overlapping course algorithm to generate potential schedules for customers in real time based on preferences.*

University Buy and Sell Website | *JavaScript, HTML/CSS, PouchDB, Express.js*

- Collaborated in a team to develop a full-stack JavaScript job university marketplace application, utilizing Scrum and Sprint methodologies.
- Designed application mock in Figma and implemented front-end UI in HTML/CSS to refine user experience.
- Integrated Google authentication and PouchDB as database to store listings (description and images); API endpoints in Express to ensure integration between frontend and backend.

Gold Stock Predictor | *Python, NumPy, Pandas, Matplotlib*

- Implemented Matplotlib graphs and visualizations based on stock of gold over time to give insight best times to buy and sell.

Technical SKILLS

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

Libraries: Pandas, PyTorch, TensorFlow, NumPy, Matplotlib, OpenCV, SciPy, Scikit-Learn, Keras

Tools and Frameworks: AWS, Azure, ReactJS, NodeJS, Flask, Django, Git, Docker, CSS/HTML, Rest API, GraphQL