Jason Yang

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Education

Georgia Institute of Technology - *Master of Science in Computer Science* August 2025 - Present

Specialization in Machine Learning

- *Relevant Coursework:* Machine Learning

Purdue University - *Bachelor of Science in Data Science* July 2021 - December 2024

Minor in Biological Sciences and Computer Science

- *Relevant Coursework:* Object-oriented Programming, Foundations of Computer Science, Python Programming, Statistics for Data Science, Probability, Data Structures and Algorithms, Statistical Theory, Applied Regression Analysis, Introduction to Artificial Intelligence, Data Mining and Machine Learning, Large Scale Data Analytics, Statistical Programming and Data Management, Programming in C, Software Engineering I, Information Systems, Intro Bioinformatics

Skills

Programming Languages: Proficient in Python, Java, R, SQL, SAS; knowledge of C, C++, JavaScript

Web Application Development: Experience with React.js, Next.js, Node.js, and MongoDB to develop full-stack applications.

Data Analysis & Machine Learning: Utilized tools such as Numpy, Pandas, Matplotlib, Sklearn, Statsmodels, and Scipy. Experienced with Hadoop, Spark, and data visualization methods for large-scale data analytics.

Database and Data Structure Knowledge: Worked with SQL, MongoDB, and Neo4j for database management and querying. Utilized platforms such as Google Cloud, Hadoop, and big data tools for processing and managing large datasets.

Experience

Purdue University - Research Assistant May 2024 - August 2025

- Contributing to the upcoming publication of four academic papers focused on educational pathways and decision-making among engineering and engineering technology students, under the mentorship of Dr. Anne Lucietto.
- Conducted a survey-based analysis of ~150 engineering technology students to investigate influences on major selection using Python, Pandas, and Matplotlib within the Jupyter extension for VS Code to clean, visualize, and analyze data.
- Supervise and delegate tasks to two new research assistants, ensuring progress through guidance, task assignment, and regular check-ins.

Purdue University - Horizons Tutor October 2023 - May 2024

- Tutored first-generation college students in chemistry, improving understanding and academic performance through personalized sessions.
- Collaborated with faculty and tutors to align strategies with course objectives, while mentoring students to develop effective study habits and time management skills.

University of Kentucky - Biomedical Informatics Mentee October 2020 - June 2021

- Developed a Python-based RESTful API for UniProtKB data retrieval, optimizing research processes and documented functionalities to streamline team integration.
- Collaborated with Dr. Hunter Moseley on project design and execution, enhancing research efficiency and data accessibility.

Projects and Extracurriculars

Arena God Tracker, Personal Project July 2025 - October 2025

- Developed a React web app where players can personally track their League of Legends arena god challenge progress
- Designed a clean and responsive UI with dynamic search and filtering using React, JavaScript, CSS, and HTML

Predictive Stock Analysis, Group Project August 2024 - December 2024

- Developed a predictive model to classify stock trends (bullish/bearish) using Linear SVM, Logistic Regression, Random Forest, and Decision Trees.
- Performed time series analysis, grid search for hyperparameter tuning, and resampling techniques to balance class distributions. Achieved 60% accuracy and a weighted F1 score of 56% on over 100,000 data points using Random Forest.

CoreNet Global Academic Challenge Finalists September 2024 - November 2024

- Placed in the Top 3 of CoreNet Global Academic Challenge 16 for proposing AI solutions in corporate real estate.
- Consulted with industry experts to design innovative applications of AI for predictive analytics and optimization.

Investagram, Group Project January 2024 - May 2024

- Designed and developed a social media platform for investment enthusiasts using Node.js, React.js, Next.js, and MongoDB. Integrated messaging functionality with Talk.js to enable real-time user interaction and built robust backend features for user management.
- Led Agile implementation as scrum master, managing sprints, facilitating weekly stand-ups, and ensuring timely delivery of project milestones through effective team collaboration.

Statistical Analysis of Ford Used Car Prices, Group Project January 2024 - May 2024

- Conducted a statistical study on 100,000 UK used Ford cars to identify pricing trends and significant factors using R.
- Utilized multiple regression and hypothesis testing to analyze multicollinearity and derive actionable insights.

Mock Brightspace, Group Project April 2022 - May 2022

- Developed a Java-based forum platform for teacher-student discussions, improving concurrency with multithreading.
- Designed a user-friendly Swing GUI for seamless navigation and interaction.