

Sean Liu

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EDUCATION

Georgia Institute of Technology

Atlanta, GA

Master of Science in Computer Science (GPA 3.9/4.0)

August 2024 – December 2025

Bachelor of Science in Computer Science, Minor in Economics (GPA 3.89/4.0)

August 2021 – May 2024

EXPERIENCE

Graduate Teaching Assistant

August 2025 – Present

Georgia Tech College of Computing

Atlanta, GA

- Support professors in delivering the data and visual analytics (CSE 6242) course to 1,200+ students by writing and grading assignments and coordinating communication with students
- Conduct weekly office hours to provide guidance to students in data science skills and technologies, including data processing and visualization, big data tools, and machine learning

Software Engineering Intern

June 2025 – August 2025

Charles Schwab

Lone Tree, CO

- Built internal software to streamline AI-driven risk management workflows, reducing manual review time by 30% and ensuring regulatory compliance
- Developed an automated model reporting pipeline with a Python, SQL, and Azure AI back end and Angular front end, reducing report generation time from hours to under 5 minutes and ensuring consistency across 100+ models

Research Assistant

June 2024 – June 2025

Georgia Tech Financial Services Innovation Lab

Atlanta, GA

- Created Python pipeline to aggregate and process thousands of financial texts for large language model training and evaluation, while supervising 20 research interns as graduate research assistant
- Analyzed the predictive and decision-making abilities of LLMs in financial contexts as volunteer research assistant

Machine Learning Researcher

August 2022 – December 2023

Georgia Tech Vertically Integrated Projects

Atlanta, GA

- Contributed to the Autonomous and Connected Transportation Driving Simulator project to design emerging transportation solutions for smart cities tested in 100+ simulated scenarios
- Optimized Python machine learning and deep learning models that detect distraction and predict behavior from physiological data, boosting test accuracies from 60% to over 80% and improving road safety

PROJECTS

Machine Learning Analysis of Urban Forests | Python, TensorFlow, sklearn, Tableau

- Implemented random forest, gradient boosting, and neural network models to predict the conditions of urban forests and their impact on public health
- Created interactive visualizations displaying the health and diversity of trees in cities around the United States

Data Science for Real Estate | Python, TensorFlow, sklearn

- Implemented a random forest classifier to decide whether to rent a house and regression models to estimate the price of a house based on its features
- Applied k-means clustering and Gaussian mixture models to group houses by similar features, enabling similar home recommendations and helping sellers determine a suitable price range

TECHNICAL SKILLS

Languages: C/C++, Java, C#, Python, SQL, R, JavaScript, Go, HTML, Assembly, Stata, MATLAB, Mathematica

Frameworks: PyTorch, TensorFlow, scikit-learn, NumPy, Pandas, Matplotlib, Vertex AI, Streamlit, PySpark, AWS, Azure, Angular, .NET, Docker, Windows, Linux, Tableau, SQL Server, SQLite, MySQL, Access, Excel, Git, GitHub, Bitbucket

Concepts: Object-oriented programming, Data structures and algorithms, Artificial intelligence, Machine learning, Deep learning, Natural language processing, Computer vision, Large language models, Data visualization, Cybersecurity, UI/UX