

Sean Liu

(470) 380-3706 • sliu750gt@gmail.com • linkedin.com/in/sliu750 • seanliu9.github.io/home • US Citizen

Education

Georgia Institute of Technology, Atlanta, GA

- M.S. in Computer Science, Machine Learning concentration (GPA 3.9) *August 2024 - December 2025*
- B.S. in Computer Science, minor in Economics (GPA 3.89) *August 2021 – May 2024*

Skills

Programming Languages:	C/C++, Java, C#, Python, SQL, R, JavaScript, Go, HTML, Assembly, Stata, MATLAB, Mathematica
Frameworks/Tools:	PyTorch, TensorFlow, Streamlit, Vertex AI, Matplotlib, sklearn, Numpy, Pandas, PySpark, Angular, AWS, .NET, Azure, Docker, Windows, Linux, Tableau, SQL Server, SQLite, MySQL, Access, Excel, Git, GitHub, Bitbucket
Software Development:	Object-oriented programming, Data structures and algorithms, Databases, Data warehousing, Data mining, Cybersecurity, Web scraping, UI/UX
Core Skills:	Artificial intelligence, Machine learning, Deep learning, Natural language processing, Data analytics, Data visualization, Computer vision, Optimization models, Simulation models

Experiences

Georgia Tech College of Computing, Graduate Teaching Assistant, Atlanta, GA *August 2025 – Present*

- Support professors in managing the data and visual analytics (CSE 6242) course with 1,200+ students by developing homework assignments, assisting with grading, and coordinating communication with students
- Conduct weekly office hours to provide guidance and answer students' questions, helping students with homework, team projects, and conceptual understanding
- Mentor students in key data science skills and technologies, including data processing and visualization, big data tools (e.g. AWS, PySpark), and machine learning

Charles Schwab, Software Engineering Intern, Lone Tree, CO *June 2025 – August 2025*

- Built and enhanced internal software to streamline AI-driven model risk management workflows, increasing efficiency and ensuring compliance with regulatory standards
- Pioneered the process of automated model reporting, writing Python scripts to query SQL databases, compute model performance metrics, summarize metrics with Azure AI, and produce visualizations aligned with industry reporting formats

Georgia Tech Financial Services Innovation Lab, Research Assistant, Atlanta, GA *June 2024 – June 2025*

- Promoted to graduate research assistant after initial volunteer role, advancing from researching financial applications of large language models to developing AI-driven tools for financial and economic decision-making
- Implemented Python-based systems to aggregate financial data and legislation, contributing to model training, and evaluated the predictive and decision-making capabilities of large language models in financial contexts
- Facilitated collaboration across faculty, staff, and interns, while supervising and mentoring a team of 20 research interns on data curation, coding, and model and application development

Georgia Tech Vertically Integrated Projects, Researcher, Atlanta, GA *August 2022 - December 2023*

- Contributed to the Autonomous and Connected Transportation (ACT) Driving Simulator, a faculty-led multidisciplinary project that designs accessible, sustainable transportation solutions for smart cities
- Redesigned and optimized existing machine learning and deep learning models in Python, boosting test accuracies from 60% to over 80% in detecting driver distraction and predicting behavior from physiological data, improving road safety

Alpha Models, Inc., Software Engineering Intern, Cumming, GA *May 2023 - August 2023*

- Implemented a C++ simulation model for railcar logistics, applying a constrained shortest path algorithm to optimize shipment routes and improve operational efficiency
- Developed a C++ solution for the Vehicle Routing Problem to automate the scheduling of freight railroad maintenance, enhancing resource allocation and reducing manual planning effort