

RICHARD SO

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EDUCATION

Georgia Institute of Technology <i>M.S. Computer Science, Interactive Intelligence</i>	08/2024 – 05/2025 Atlanta, GA
Georgia Institute of Technology <i>B.S. Computer Science — GPA: 4.0</i>	08/2021 – 05/2024 Atlanta, GA

WORK EXPERIENCE

Amazon Web Services <i>Software Engineering Intern (ML)</i>	05/2024 – 08/2024
<ul style="list-style-type: none">Member of an investigative research team that quantitatively analyzes user and developer experience across AWS.Reduced runtime of an internal data pipeline by >85% leveraging a parallelized fork-join model with AWS Lambda functions.Automated activity labeling of user session screenshots using Amazon Rekognition, Textract, and Anthropic's Claude LLMs.	
Georgia Tech Financial Services Innovation Lab <i>Research Assistant</i>	05/2024 — Present
<ul style="list-style-type: none">Explored benchmarking strategies and metrics to evaluate against state-of-the-art LLMs in financial/economic contexts.Devised robust document parsers with BeautifulSoup, RegEx, and spaCy to compile immense datasets for LLM fine-tuning.	
Tanium <i>Software Engineering Intern</i>	06/2023 — 08/2023
<ul style="list-style-type: none">Implemented CRUD logging into an internal PostgreSQL database and RESTful API interface to elevate console visibility.Rapidly tackled 50+ Jira tickets within a 10-week internship maintaining a Knex.js and React TypeScript codebase.Exercised test-driven development and data validation using Jest, Jasmine, and Joi to ensure UI and API reliability.	
Georgia Tech College of Computing <i>Senior Teaching Assistant</i>	01/2023 — 05/2024
<ul style="list-style-type: none">Headed biweekly lectures on computer architecture foundations, the C language, and memory allocation principles.Developed unit testing suites, docker images for auto-grading, and course software servicing 1000+ students per semester.	
Union Pacific <i>Technology Intern</i>	05/2022 — 08/2022
<ul style="list-style-type: none">Designed explainable ML regression models to estimate rail shipment prices for customers using XGBoost and SHAP.Performed rigorous feature engineering to achieve a 31% RMSE decrease versus UP's existing pricing analytics solution.	

PROJECTS

Generative Data Augmentation for Image Classification <i>PyTorch, Stable Diffusion, ControlNet</i> (🔗)	04/2024
<ul style="list-style-type: none">Experimented with multiple image generative models to enhance image classification accuracy when data is scarce.Observed a 10% F1 increase for Resnet-50 on a compact dataset when augmented with ControlNet-generated images.	
LC3Tools <i>C++, Vue, Electron, LC-3 Assembly</i> (🔗)	10/2023 — 05/2024
<ul style="list-style-type: none">Lead maintainer of the educational tooling suite to code, assemble, and simulate assembly programs for the LC-3.Added 20+ major quality-of-life improvements through student and instructor feedback as a fork from the original project.	
Alaskan Wildlife Image Segmentation <i>Python, PyTorch, Pillow</i> (🔗)	09/2021
<ul style="list-style-type: none">Utilized and refined the FgSegNet segmentation model to predict and automatically annotate animal presence in image data.1st Award Winner of 2021 Terra NYC STEM Fair and <u>Milton Fisher Scholarship for Innovation and Creativity</u>.	

SKILLS

Programming Languages	Python, TypeScript/JavaScript, C/C++, Go, MATLAB, Java, Lua
Frameworks & Libraries	React, Vue, Angular, Jest, Express, Flask, PyTest, NumPy, Pandas, SkLearn, PyTorch
Databases & Misc.	Firebase, PostgreSQL, SQLite, Git, Github Actions, Docker, LaTeX, Vim, AWS