

## EDUCATION

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- **Georgia Institute of Technology** Atlanta, GA  
*Bachelor's of Science in Computer Science; GPA: 3.94/4.0* Aug 2022 – Dec 2025
  - **AI:** Artificial Intelligence, Deep/Machine Learning, Large Language Models, NLP for Financial Markets
  - **Systems Architecture:** Compilers, Computer Architecture, Data Structures & Algorithms, Operating Systems

## EXPERIENCE

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- **nCino** Wilmington, NC  
*Software Engineer Intern, Cloud Solutions & Platform Engineering Team* May 2024 - Dec 2024
  - **Typescript and Python AWS SDK Development:** Worked in cross-functional team integration between Cloud Solutions and Platform Engineering, engineered AWS observability microservice using TypeScript/Python, Lambda, EventBridge, and Amazon SNS for real-time monitoring, reducing failure response times by 90%
  - **Software Release Platform Development:** Pushed new AWS Lambda functions with enhanced error handling and redirection to automated deployment platform handling 140k+ annual package installations, saving \$1M+ in operational costs and eliminating manual customer success interventions
  - **CI/CD Software Testing and Deployment:** Implemented unit, API endpoint, and integration tests using GitHub Actions, YAML, and Bash for sandbox and production environments
- **Georgia Institute of Technology, College of Computing** Atlanta, GA  
*Undergraduate Teaching Assistant, Computer Architecture & Programming* Aug 2023 - May 2024
  - **Tech Stack Development & Teaching:** Instructed bi-weekly lab sections of 50+ students covering C, LC-3 Assembly, x86, and hardware driver design. Enhanced course infrastructure by developing C++ autograders and maintaining Docker containers
  - **Student Feedback:** “Very approachable and fostered a lab culture”, “Great speaker and simplified hard topics”
- **Michigan State University, Dept. of Computational Mathematics** East Lansing, MI  
*Machine Learning Intern* May 2019 - Aug 2022
  - **Machine Learning Pattern Analysis:** Processed and analyzed over 2 million earthquake data points, employing pandas for efficient data manipulation. Utilized Monte Carlo simulations for bootstrapping and implemented unsupervised clustering algorithms, leading to the discovery of a novel eruption mechanism

## PROJECTS

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- **Georgia Tech FinTech Lab - Stock Recommender (Python, Scikit, Pandas, Numpy):** Built ML pipeline analyzing 10-year market sentiment data to recommend stocks using neural networks and clustering
- **TournaMate (Next.js, React, Typescript, GPT API):** Led 6-person team to develop bracket generation application utilizing OpenAI's o1 model's reasoning to automate seeding, managing sprint planning and code reviews
- **Food Search (Spring Boot, React, Java, Maven, Google Cloud Platform):** Full stack web application where users can login and save recommended restaurants and food trucks, deployed on Google Cloud App Engine
- **xv6 Operating System Development (C, x86 Assembly):** Enhanced Unix OS by implementing FIFO process scheduling, kernel multi-threading support, and a secure userspace login system utilizing SHA256 hashing and salting

## TECHNICAL SKILLS

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**Languages:** Java, Python, Typescript, C/C++, C#, Salesforce Apex, JavaScript, Golang, CSS, HTML, SQL  
**Developer Tools:** Apache, Amazon S3, Datadog, Docker, DynamoDB, Git, Jira, Salesforce  
**Libraries:** Scikit-learn, pandas, numpy, matplotlib, transformers  
**Full-Stack:** Ruby on Rails, Express, Firebase, Flask, Gradle, MongoDB, Node.js, Postgres, REST APIs

## PUBLICATIONS AND AWARDS

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- 2022 Regeneron Scientific Talent Search Semifinalist/Scholar
- Mao, G.L., Ferrand, T.P., Li, J. *et al.* Unsupervised machine learning reveals slab hydration variations from deep earthquake distributions beneath the northwest Pacific. *Commun Earth Environ* **3**, 56 (2022).