

Carl Paolino

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EDUCATION

Georgia Institute of Technology

Bachelor of Science in Computer Science, Minor in Mathematics

Atlanta, GA

August 2023 – May 2027

- Concentration in Intelligence and Information Internetworks
- Coursework: Data Structures & Algorithms, Computer Organization, Design & Analysis of Algorithms, SQL, Artificial Intelligence, Data Input/Manipulation, Linear Algebra, Object Oriented Programming

EXPERIENCE

System Engineer Intern

Georgia Tech Research Institute(GTRI)

January 2026 – May 2026

Atlanta, GA

- Designing and implementing an end-to-end machine learning pipeline to automate unit test generation using Ollama-hosted LLMs, remotely optimizing models on GPU-enabled infrastructure for scalable inference
- Constantly Containerizing the pipeline using Docker and integrated LangChain and LlamaIndex to orchestrate prompt workflows, manage code reviews, and apply automated test generation across multiple programs

Software Engineer Contractor

October 2025 – December 2025

Foundry AI

Atlanta, GA

- **Government Contract**
 - * Implemented an AI testing pipeline for unit, integration, and end-to-end tests with CI integration, automated LLM-as-Judge scoring, and budget-aware execution to achieve $\geq 90\%$ accuracy on test benchmark
 - * Developed an AI-powered conversational pipeline with a live dashboard and chatbot interface, allowing users to query data and receive real-time, context-aware responses generated through SQL and LLM inference
- **Commercial IOS Application**
 - * Developed an AI-powered native IOS application, implementing a robust tool orchestration framework to manage model-driven actions, data flows, and device capabilities
 - * Designed and enforced a permission management system, ensuring secure execution of AI tools, user data isolation, and compliance with platform security best practices

Software Developer Intern

Healthmap Solutions

July 2025 – August 2025

Tampa, FL

- Developed an internal web tool with Python, React, and Django to serve as a test harness for health analytics and care coordination
- Learned about deployment to a serverless application using AWS Lambda connected to an RDS database, with automated CI/CD pipelines through GitHub Actions

Undergraduate Researcher

Georgia Institute of Technology

January 2025 – May 2026

Atlanta, GA

- Improving the design and implementation of a forest-fire prevention drone communication system
- Developing a Google Cloud-based data pipeline connecting a Raspberry Pi drone system to Firestore, enabling real-time telemetry and live video streaming via Cloud Run and Pub/Sub

PROJECTS

InvestIQ | Electron.js, FastAPI, Python, Scikit-learn, Raw/Live datasets

July 2025 – Present

- Developing an AI-powered investment assistant using market data APIs and LLMs to provide trading insights
- Fine-tuning learning models with regression for predicting stock activity based on raw and live datasets
- Designing an overlay UI to display live AI investment suggestions produced from LLM training

CS 3600 | NumPy, Pandas, Python, TensorFlow, PyTorch

May 2025 – July 2025

- Developed goal-state detection, successor functions, and heuristic evaluation for agents to explore and plan
- Explored reinforcement learning algorithms to solve Markov Decision Processes
- Implemented Q-Learning algorithm to train autonomous agents in TextWorld-Express environments

TECHNICAL SKILLS

Languages: Java, Python, C, JavaScript, SQL, TypeScript, Swift

DevOps and Analytics: CI/CD, Remote SSH, Git, GitLab, Docker, Pandas, NumPy, Excel

Developer Tools: Git/GitHub, Linux, Bash, SDLC, Scrum, Google Cloud Console, AWS, PostgreSQL, MongoDB

Frameworks/Libraries: React, Ollama, LLama-index, LangChain, TensorFlow, Scikit-learn, SwiftUI, Django