

Edmond Niu

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EDUCATION

Duke University | Durham, NC

August 2022 – May 2026

Bachelor of Science (B.S.) in Computer Science

GPA: 3.9/4.0.

Relevant Coursework: Data Structures & Algorithms, Design & Analysis of Algorithms, Intro to Data Science, Elements of Machine Learning, Web Development, Database Systems, Computer Architecture, Discrete Mathematics, Linear Algebra, Everything Data

TECHNICAL SKILLS

Languages: JavaScript (React/Angular/Node/Express), Python, SQL, Terraform, TypeScript, R, Java, HTML5, CSS, YAML

Frameworks: PostgreSQL, Tailwind, Axios, TanStack Query, Jotai, Slate, Pandas, PyTorch, Flask, Jupyter, NoSQL, Supabase

Developer Tools: Docker, Kubernetes, Git, Linear, Sentry, Datadog, AWS, Expo, Mixpanel, DataGrip, Cursor, Agile, CI/CD, Figma,

EXPERIENCES

Kensho Technologies

Cambridge, MA

Software Engineering Intern

May 2025 – Present

- Building a [Python library](#) of LLM tools & backend API endpoints to expose S&P Global financial data to clients.
- Creating an MCP server with FastMCP and AI agent to implement tools into a multi-agent framework with LangGraph.

Rilla

New York, NY

Software Engineering Intern

January 2025 – May 2025

- Integrated full stack GIF functionality into comments on web (React, TypeScript) and mobile (React Native) platforms by developing a backend endpoint (Express.js) that interfaces with external GIPHY API to fetch GIFs and implemented optimized PostgreSQL queries to dynamically surface users' frequently used GIFs.
- Enabled rapid ECS Fargate service deployment by engineering a reusable Terraform module (600+ lines) that initializes an ECR repository for pushing Docker images, CloudWatch logging with Datadog integration, IAM roles, and SQS.
- Improved comment attachment upload success rate by 5% in the React Native mobile app by engineering robust retry logic using local SQLite database storage via Expo Drizzle, enhancing performance during intermittent connectivity.
- Reduced customer API export processing time by 93% (from 6000ms to 400ms) by optimizing large SQL queries.

Vanguard

Malvern, PA

Software Engineering Intern

May 2024 – August 2024

- Automated the manual calculation of the Pricing Index for Financial Adviser Services, increasing efficiency by 75% & eliminating human error by engineering a real-time ETL data pipeline from AWS DynamoDB to S3 to Tableau.
- Extracted and transformed stream records from JSON to CSV utilizing Python & Pandas in an AWS Lambda function.

Duke LaBar Laboratory

Durham, NC

Data Engineering Intern, Research Assistant

January 2024 – May 2024

- Established the data processing pipeline from subject intake to experiment configuration to data analysis of results on a high-performance computing (HPC) cluster in Python for a research experiment with 60 subjects, saving 180+ hours.
- Conducted data wrangling on large-scale datasets by engineering a Python package with a custom-built command line interface (CLI) & unit testing using pandas & Jupyter Notebook to process data ([GitHub Repo](#)).

PROJECTS

Gem Learn | Google Gemini API, React.js, PostgreSQL, RAG, NLP, LLM, Python Flask, Open Source Database

September 2024

- Developed a RESTful full-stack web app with 4 teammates enabling users to remember their Gemini (LLM) queries by generating query/response flashcards built with a React frontend and a Python flask & Supabase (PostgreSQL) backend.
- Built a career chatbot with retrieval augmented generation (RAG) to provide 25% more contextually relevant responses fine-tuned on career data using semantic retrieval, vector embeddings, & Google's NLP generative language model.
- Awards:** 2025 SteelHacks XI Winner: [Best Pitt Inspired Demo powered by Gemini API](#); [GitHub Repo](#); [Video Demo](#)

First 90 Days of Investing | Python, REST API, Flask, DynamoDB, Database schema, pandas

May 2024 – August 2024

- Launched a full-stack web app with a REST-based API with a team of 8, featuring an interactive dashboard to calculate net monthly balance using an AngularJS frontend and a Python Flask backend with an AWS DynamoDB database.

AWARDS

Awards: [2025 SteelHacks XI Winner](#), [2025 AI Hack Night Winner](#), [2024 Duke ASA DataFest Finalist](#), [2021 Hths.Hacks\(\) Winner](#)