

# CADU CUDDY

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## EDUCATION

**North Carolina State University**  
BS Computer Science *GPA: 3.9*

Raleigh, NC  
Aug 2020 - Dec 2023

## EXPERIENCE

### Amazon

*Software Engineering Intern*

Austin, TX  
May 2023 - Aug 2023

- Spearheaded the implementation of LLM technology for anomaly detection in supply chain data, delivering a notable 90% anomaly detection rate
- Architected generative AI anomaly detection system using Python, Langchain, and a vector DB
- Collaborated with a cross-functional team of data scientists and engineers to successfully integrate the LLM solution into the existing infrastructure

### Amazon

*Software Engineering Intern*

Austin, TX  
May 2022 - Aug 2022

- Designed, implemented, and deployed full-stack internal computer vision classification feedback system, reporting CV misclassification data on a 100,000,000+ events/month API
- Led the development of an internal web application feature using React, Typescript, NodeJS, and DynamoDB to provide information about misclassified CV events
- Built scalable backend data pipeline capable of analyzing CV classifications on 10,000,000+ Ring Doorbell events using Go & AWS
- Launched feature on production environment, improving model accuracy by 9%

### Liquid Rocketry Lab

*Programming Lead*

Raleigh, NC  
Aug 2020 - Present

- Worked with team of 10 student developers on multiple projects, including: a compiler, full-stack mission control dashboard, and embedded microcontroller firmware suite
- Implemented complete binary data disassembler and test-file parser in Rust to ensure valid compiler output, ensuring 99.9% accurate compilation
- Built high performance mission control UI using React complete with realtime telemetry visualization and an InfluxDB time-series database for persistence

## PROJECTS

### Rocket Engine Testing Language & Compiler *Rust, Python*

Contributor on a compiler for a custom rocket engine testing language written for easy use by technical/non-technical engineers in a rocketry research & development lab

### CaseCalc *React, TypeScript, AWS Lambda, PostgreSQL, Next.js*

<https://www.casecalculator.app/>

Developed a CS:GO unboxing logistics calculator web app leveraging real-time Steam market data with a wealth of features for 1,400+ weekly users

### Equihire *React, JavaScript, CockroachDB, Python*

Led design & development of web app that facilitates fair hiring practices through automated anonymization of resumes. Won 3rd in the 'Inequality' track at HackDuke 2022.

### Distributed P2P-CI File Sharing System *Python*

Implemented a hybrid peer-to-peer and client-server distributed system, utilizing socket programming and multithreading for concurrent communication and file sharing among networked nodes.

## SKILLS

Programming Languages:	Python, TypeScript, Java, Rust, Golang, C, HTML/CSS, SQL, JavaScript
Libraries & Frameworks:	React, tRPC, Next.js, TailwindCSS, Node.js, Prisma, pandas
Developer Tools:	Git, Docker, UNIX, AWS, Figma, Terraform, MongoDB, Jira, Kubernetes

## AWARDS

### Advent of Code Day 4 - 54th Place

Stayed up until midnight to finish 54th in the world on Day 4 of AoC

Advent of Code  
Dec 2022