Kaushal Chamarthy

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EDUCATION

The University of Texas at Austin May 2025

Bachelor of Science *in Computer Engineering & Mathematics, GPA: 3.91*

Minor *in Business Administration & Management*

Relevant Coursework: Data Science, Distributed Systems, Algorithms, Data Structures, Software Implementation/Design

ABOUT ME

Innovative software engineer specializing in architecting scalable and resilient backend systems. Experienced in designing and maintaining distributed systems, ensuring infrastructure stability, and integrating AI/ML technologies. Driven by a passion for creating high-performance solutions that push the boundaries of what's possible. Adept at turning complex challenges into impactful results.

SKILLS

Languages: Python, Java, C++, C, React, HTML, CSS, Javascript, React Native

Tools/Technologies: Flask, Spring, MongoDB, SQL, AWS, GCP, Salesforce, Splunk, Docker, Kafka, Kinesis, Redis, Git, LLM, RAG

EXPERIENCE

Cisco, San Francisco Bay Area, CA May 2024 - August 2024

Software Engineer Intern

- Architected a **Spring Boot API** leveraging **ChatGPT Turbo** to streamline notification summaries for 1,100+ customers
- Wrote 4 **OpenSearch** query methods for retrieving notifications filtered by various criteria enhancing data accessibility
- Restored 20+ critical unit tests by resolving **AWS Kinesis** failures and stabilizing **Localstack** integrations in **CI/CD** pipelines

Dun & Bradstreet, Austin, TX June 2023 - August 2023

Software Engineer Intern

- Implemented **AspectJ** logger for 60+ microservices, tracking endpoint execution times, driving performance improvements
- Engineered **Splunk** dashboards to monitor 10000+ staging/production exceptions, strategically averting production issues
- Identified performance bottlenecks and implemented targeted optimizations, resulting in a 20% increase in response time

Community Health Choice, Houston, TX June 2022 - December 2022

QI Special Projects Coordinator Intern

- Utilized **Salesforce Marketing Cloud** to create impactful member journeys, driving a 30% increase in customer interaction
- Designed effective long-term support models, contributing to a 25% year-over-year growth in marketing initiatives
- Coordinated stakeholders, achieving a 20% improvement in issue resolution time mitigating risks in critical project areas

ORGANIZATIONS

Texas Rocket Engineering Lab, Austin, TX February 2022 - Present

Lead Software Engineer - Guidance Navigation & Control (GNC) Team

- Reducing simulation runtimes by 15% through **MATLAB** to **C++** code conversion in **Trick**, accelerating simulation analysis
- Empowered the GNC team with a 20% reduction in simulation iteration time, enabling faster decision-making processes

Software Engineer - Avionics Team

- Collaborated in a 100+ member team to develop the software stack fluids model for a liquid bipropellant spaceship rocket
- Maintained high reliability by utilizing **C**, **LabView**, and **VeriStand** to simulate rocket fluid systems with 95% reliability

Texas Convergent, Austin, TX August 2021 - December 2022

Lead Software Engineer - CareersGO

- NFC-based digital service using **PocketBase**, **Next.js**, and **React Native**, enhancing career fair experiences for students
- Implemented seamless networking and information exchange, resulting in 40% increase of candidate/recruiter connections

Software Engineer - Senti

- Developed a **Python** based stock market app leveraging **Tweepy**, **Webflow**, and Google's **Natural Language API**
- Implemented reliable indicators for buying, selling, or holding stocks, resulting in a 20% increase in user performance

PROJECTS

Image Processing with CUDA

- Accelerated image processing by 600x using **CUDA** to parallelize Gaussian Blur, Mean Blur, and Sobel Edge algorithms
- Optimized GPU-based pipelines for real-time edge detection, outperforming CPU implementations in speed and accuracy
- Enhanced image processing efficiency, showcasing GPU superiority in handling computationally intensive tasks

HaaS Project

- Led the **MERN** stack development of a HaaS web app, incorporating secure authentication and streamlined management
- Engineered 5 user-friendly features for project creation, hardware set tracking, and real-time dashboard updates
- Implemented efficient hardware check-in/out functionality, enhancing project management efficiency by 30%