RISHITH MODY

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EDUCATION

Arizona State University, Tempe, Arizona   Aug 2023 | Expected: May 2027
B.S. in Computer Science, Dean's List: Fall 2023 − Present   **Current GPA: 3.95**

SKILLS

- **Programming Languages:** Java, Python, C, C++, CUDA, JavaScript, TypeScript, SQL, HTML/CSS
- **Frameworks and Libraries:** React, Angular, Next.Js, Flask, TailwindCSS, Bootstrap
- **Tools and Platforms:** Git/GitHub, Docker, Kubernetes, Jupyter Notebook, Visual Studio Code
- **Database Management:** MySQL, PostgreSQL, MongoDB
- **Cloud Computing:** AWS (EC2, S3, Lambda), Azure, Vercel
- **Machine Learning and AI:** TensorFlow, PyTorch, Scikit-learn, OpenCV, ROCm

EXPERIENCE

Intel Corporation   Chandler, AZ
Benchmark Performance Intern   May 2025 − Present

- Built benchmarking pipelines for CPUs, GPUs, and AI accelerators using GStreamer and OpenCV, and used ONNX Runtime, PyTorch, TensorRT, and other open-source frameworks to benchmark and compare performance across hardware platforms.
- Automated performance testing and analysis in Python, C/C++, and shell on Linux/Windows.
- Researched and benchmarked LLMs and vision models, optimizing inference and fine-tuning efficiency.
- Applied model quantization and optimization via vLLM, AMD Quark, and mixed-precision (FP32/BF16/INT8).
- Performed real-time system analysis with ftrace, cyclictest, and other rt-tests; contributed kernel and BIOS/firmware tuning patches.

VOVANCE Ltd   Ahmedabad, India
Software Developer   May 2024 − Aug 2024

- Developed Retrieval-Augmented Generation (RAG) pipelines using LangChain with LLMs, FAISS for contextual QA and knowledge retrieval.
- Enhanced ML/NLP models via improved preprocessing, tokenizer tuning, and feature extraction, increasing accuracy by 20%.
- Built scalable backends with Python (FastAPI) and Node.js (Express), using async processing and optimized SQL for higher API throughput.
- Contributed to code reviews, documentation, and design specs to ensure maintainability and performance.

ASU- Ask A Biologist   Tempe, Arizona
Software Developer   Sep 2024 − Dec 2024

- Developed a custom web crawler to extract and migrate data from a legacy website to a new Drupal-based platform.
- Ensured seamless data transfer by optimizing migration scripts for accuracy and minimal downtime.
- Collaborated with cross-functional teams to enhance site functionality and improve user experience during the transition.

PROJECTS

AeroDocs GitHub Link
Technologies used: Next.js, TypeScript, Python, Node.js, Machine Learning, Ollama LLaMA 3.2, YOLOv8

- Built a secure knowledge base and VPC solution for Honeywell using a RAG-based vector search pipeline.
- Implemented document search via barcode, part numbers, and image recognition using LLaVA and YOLOv8.
- Enabled upload and retrieval of technical documents to streamline repair workflows.

Object Detecting Vest GitHub Link
Technologies used: Python, Raspberry Pi

- Engineered an innovative object-detecting vest aimed at enhancing safety and navigation for the visually impaired.
- Developed a mobile application for step tracking and seamless control of vest features.
- Integrated hardware and software for optimal functionality and user experience.

Schrödinger's AI GitHub Link
Technologies used: Next.js, TypeScript, Node.js, MongoDB, AWS, Vercel, Docker

- Built a hallucination-resistant AI chatbot using RAG and factual verification layers.
- Integrated LLM APIs with custom prompt engineering and a reliable knowledge base.
- Reduced hallucinations by 40% and deployed a scalable backend on AWS and frontend on Vercel.

Orbit GitHub Link
Technologies used: Python, React, TypeScript, AWS, MongoDB, Vercel, Docker

- Built a chatbot for real-time travel planning with live flight and booking data.
- Used Gemini 1.5 Flash and FlightLabs APIs; improved response time by 50% and user satisfaction by 25%.
- Backend servers currently hosted via AWS and frontend hosted via Vercel.

COURSE WORK

Current Course Work: Operating Systems, Theoretical Computer Science, Applied Statistics **Past Semester Course Work:** Data Structures and Algorithms, Intro to Software Engineering, Information Assurance, Probability and Statistics, Object-Oriented Program & Data, Calculus for Engineers I & II, Univ Physics I: Mechanics, Principles of Programming, Introduction to Engineering, Intro to Programming Languages, Logic in Computer Science, Digital Design Fundamentals, Discrete Math Structures

EXTRA CURRICULAR

Software Developers Association (SoDA), Member   Aug 2023 − Ongoing

- Collaborated on projects, attended professional talks, and prepared for software development careers.

HackerDevils, Outreach Officer   Dec 2024 − Ongoing

- Led outreach initiatives to promote club events and hackathons.
- Established partnerships with local organizations to support club activities and sponsorships.
- Organized and participated in hackathons, fostering a collaborative environment for innovation.