Vaishak Menon

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PROFESSIONAL SUMMARY

Graduate student in Computer Science with experience across full-stack backend development and cloud infrastructure. Delivered production features including RESTful API design, third-party integrations, and algorithmic solutions in Agile environments, alongside expertise deploying scalable solutions to GCP using Terraform and Kubernetes. Demonstrated technical leadership through Teaching Assistant role and Infrastructure Internships.

WORK EXPERIENCE

Finchirp   **Remote**
Backend Software Developer   *Aug 2025 - Present*

- Architected real-time financial data integration system integrating multiple third-party APIs with caching layer and RESTful endpoints, enabling platform to deliver live market data to users at scale using Agile methodologies.
- Developed proprietary multi-factor scoring algorithm combining weighted data from multiple sources to identify market trends, with optimized query performance through intelligent caching strategies.
- Delivered full-stack features across 3,000+ LOC in 2-week sprint cycles, integrating multiple external APIs, designing database schemas, and managing migrations using Jira for project tracking and team coordination.

University of Alabama at Birmingham   **Birmingham, Alabama**
Computer Science Teaching Assistant   *Aug 2022 - May 2025*

- Assisted professors in teaching Data Structure and Algorithms in Python and Java and Systems Programming in C.
- Evaluated and provided feedback on more than 400 assignments each semester, achieving a turnaround time of under 72 hours.
- Mentored students in core programming concepts, guided them through assignment completion, and delivered in-depth code feedback to accelerate skill development.

Maven Wave Partners   **Chicago, Illinois**
Infrastructure Intern   *Jun 2023 - Aug 2023*

- Authored comprehensive training documentation on YAML/Terraform and created interactive demos for cloud technologies, accelerating new employee onboarding and adoption of Infrastructure as Code practices.

Infrastructure Intern   *Jun 2022 - Aug 2022*

- Refined Terraform configurations to finalize a scalable GCP environment and streamlined deployment documentation to maintain consistent infrastructure management across the organization.

Infrastructure Intern   *Jun 2021 - Aug 2021*

- Engineered a secure data-sharing microservice using Kubernetes, enabling seamless data exchange between provider and third-party companies within a progressive GCP implementation.

EDUCATION

University of Alabama at Birmingham   **Birmingham, Alabama**
B.S in Computer Science   *Graduation Date: Apr 2024*
M.S in Computer Science   *Graduation Date: May 2025*

PROJECTS

FastAPI RAG Service

- Built and tuned a retrieval-augmented chatbot with reproducible evals on SQuAD v2 (500 ex), reaching Pareto-frontier generative settings (F1 0.54, NoAns 0.92, p50 ~130 ms) and retrieval Recall@5 0.85 (Hit@1 0.65)

GPT From Scratch

- Developed a large language model, decoder-only flash transformer architecture using Python. One version of the model is available on Huggingface.

CERTIFICATIONS & SKILLS

Certifications: Certified Kubernetes Administrator, AWS Certified Cloud Practitioner, AWS Certified AI Practitioner

Skills: Kubernetes, Terraform, GCP, AWS, C, Python, Java, JavaScript, PSQL, MongoDB, Docker, Ollama