Vaishak Menon

Waxhaw, NC | 630-425-2435 | vaishakmenon.com | vaishakkmenon25@gmail.com | GitHub | LinkedIn

PROFESSIONAL SUMMARY

Graduate student in Computer Science with hands-on experience deploying cloud-based solutions to GCP using Terraform and deploying applications to Kubernetes. Demonstrated teaching and mentorship skills as a Teaching Assistant, coupled with industry exposure from multiple Infrastructure Internships.

WORK EXPERIENCE

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, IL**
Infrastructure Intern   *Jun 2023 - Aug 2023*

- Authored comprehensive training documentation on YAML configuration and Terraform provisioning, ensuring new employees could quickly adopt and deploy Infrastructure as Code within the organization.
- Created interactive demos embodying real-world deployment scenarios and best practices for cloud technologies, offering hands-on learning experiences that accelerated onboarding.

Infrastructure Intern   *Jun 2022 - Aug 2022*

- Refined Terraform configurations to finalize a scalable Google Cloud Platform environment, ensuring reliable deployment practices and adherence to best practices.
- Streamlined documentation on deployment procedures and introduced standardized processes to maintain consistent, efficient infrastructure management across the organization.

Infrastructure Intern   *Jun 2021 - Aug 2021*

- Integrated with the Infrastructure team on the progressive implementation of a Google Cloud Platform environment using Kubernetes.
- Engineered a secure data-sharing microservice using Kubernetes, enabling seamless data exchange between provider and third-party companies.

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.

Music Genre Classification

- Developed a CNN-based model to classify spectrogram representations directly, achieving a notable accuracy increase (+5–10%) over traditional approaches (k-NN, SVM, Random Forest).

CERTIFICATIONS & SKILLS

Certifications: Certified Kubernetes Administrator, AWS Certified Cloud Practitioner

Skills: Kubernetes, Terraform, Google Cloud Platform, C, Python, Java, JavaScript, React, PSQL, MongoDB, Docker