Abdul Hakkeem P A

⋄ abdulhakkeempa2002@gmail.com ⋄ +91-9995385225 ⋄ Location: Kochi, India
⋄ https://www.linkedin.com/in/abdul-hakkeem-pa ⋄ https://github.com/abdulhakkeempa
⋄ https://abdulhakkeempa.github.io

EDUCATION

Cochin University of Science & Technology   July 2021 - July 2026
M. Sc (5 year integrated) in Computer Science (Artificial Intelligence & Data Science)   CGPA (Current): 8.3

PROFESSIONAL EXPERIENCE

Nav Technologies Pvt. Ltd.   January 2024 - Present
Software Engineer Intern (Research & Development)

- Currently **researching, developing and prototyping** AI Agents and RAG applications to increase operational efficiency by **reducing turn around time** in Banking and Fin-Tech organisations.
- Containerized the existing applications into Docker, **reducing deployment time by 35%** and improving system portability.
- **Engineered** database migration from self-hosted production database (MySQL) to **AWS RDS**, implementing **replication**, ensuring data **consistency** and **zero-downtime** cutover.
- Developed and deployed **Management Information System (MIS)** using **AWS Fargate**, **enhancing system scalability by 15%** and **reducing operational costs by 10%**, by employing efficient serverless cloud-native technologies.

Centrric Innovations Pvt. Ltd.   August 2022 - February 2023
Project Coordinator (Internship)

- Enhanced **product design** by converting **user requirements** into product features and **designing initial wireframes** improving user satisfaction by **40%** through collaboration with **cross-functional** teams.
- Ensured **efficient product development** by **documenting** APIs, Integration Reports, Test Reports, and Deployment Plans **reducing development time by 20%** by **close collaboration** with the **engineering team.**

PROJECTS

Distributed Object Detection on Edge Devices using tinyML - [Academic]   Link
Skills: Python, Yolo, Object Detection, Raspberry PI, MQTT, tinyML

- Implemented **distributed computing** on edge devices to **reduce central server load** and **latency**, enhancing real-time processing capabilities.
- Developed an **object detection system** that identifies cars from camera streams and compares them to a target image, facilitating vehicle tracking across **distributed devices** with **edge-based processing**.

Accent Ace: AI pronunciation helper   Link
Skills: Next.js, Tailwind CSS, FastAPI, Gemini, Docker, Firebase, Vercel, Google Cloud Run

- An AI-powered application that **generates text for users** and **records their voice** while they read the text, to **analyze their pronunciation**.
- Based on the analysis, users are given a **score** for their pronunciation, along with **feedback** and possible **suggestions.**
- The project is built using the **Gemini-1.5-Pro** model, wrapped around a **FastAPI** endpoint, which is deployed as **Serverless Containers** on **Google Cloud Run**, with a frontend using Next.js and Tailwind CSS, and **authentication** provided by **Firebase**.

TECHNICAL SKILLS

Proficient in Python, C++, JavaScript, Data Structures and Algorithms, Unix/Linux, Next.js, Django, Tensorflow, Node.js, Tailwind CSS, PostgreSQL, MySQL, GCP, AWS, UI/UX, Figma.

ACHIEVEMENTS

1. Ranked Top **30 teams** at **IEEE Global Generative AI Challenge** at **International Level** for developing an **AI Agent for Automated UI Design**.
2. Ranked Top **15 finalists out of 600 teams** at South Indian Bank's Fin-Tech Hackathon at IIT Delhi. Achieved this by presenting a **technical presentation** and building a **personalized recommendation system** integrable with existing banking apps.
3. Contributed to the open-source project **Infisical**, a secret operations management tool, by resolving a bug, which was acknowledged through the acceptance and merge of my **pull request** into the main repository.

EXTRACURRICULAR

1. **Execom Member, Google Developer Groups Cloud Kochi**: I **strategize** and **analyze** community engagement initiatives, **volunteer** in socially impactful programs, **facilitate** educational workshops and hands-on events, and **curate** tech-based materials to enrich participant learning and experience.
2. **Lead Organizer, Make-a-Ton (Hackathon)**: Led Kerala's **largest university hackathon** and **first Major League Hacking** member event resulting in successful product creations by **150+ participants** by **scaling the event from 80 to 150+** participants and **leading a cross-functional team of 20.**