ARKAPRAVA GAINE

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EDUCATION

SASTRA Deemed to be University | Thanjavur, India   **Oct 2022 – June 2026 (expected)**
Bachelor of Technology in Computer Science & Engineering (spl in IOT and Automation)
Academic Project: Behavioural Rhythm Insider Threat Detection using Bi-LSTMs   *Github*

WORK EXPERIENCE

Backend Developer Intern | TARS   **Jan 2025 – May 2025**

- Co-designed **system architecture** and **database models** using **PostgreSQL**, ensuring seamless integration with other systems.
- Developed 3 key REST APIs in **TypeScript**, incorporating test writing and quality assurance methodologies to enhance backend performance.
- Engineered a comprehensive **database schema** with 2 optimized tables, applying object-oriented programming and relational database principles.
- Documented **API endpoints** with **Postman** collections and Swagger, supporting effective communication within a multi-functional team.

AWARDS AND ACHIEVEMENTS

- **Achieved 4th position** in **National level Mercer Mettl hackathon** , building an AR app making geography engaging. **Oct 2024**
- **Achieved 3rd position** in **Intel One API Hackathon** in KPR College,   **Nov 2024**
  Coimbatore building a ML face detection based heart health monitoring web-app

PROJECTS

QueryFlow - *Tech Stack* : React.js, FastAPI, PostgreSQL, ChromaDB,Gemini AI   *Github*
  • No-code AI workflow automation platform with drag-and-drop interface for visual AI pipeline design and chat with AI.
  • Integrated intelligent document processing with web search capabilities, automatic text extraction, and context-aware retrieval.
  • REST APIs handling document uploads, vector embeddings, and workflow orchestration with persistent storage

Inbox Insight - *Tech Stack* : Node.js, MongoDB, React.js , AWS EC2 , Nginx   *LiveLink*
  • Email deliverability analyzer testing inbox placement with unique test code tracking and automated folder detection.
  • REST APIs for real-time email monitoring, generating shareable reports and email notifications within 2 minutes.
  • Frontend made with React JS , Tailwind with deployment on Netlify and AWS EC2.

Dynamic QR Tool - *Tech Stack* : Node.js , PostgreSQL , React.js , AWS EC2 , AWS RDS , Nginx   *LiveLink*
  • Built dynamic QR code generator with user profiles and **Google OAuth** authentication.
  • Developed **REST APIs** from scratch for QR management and **real-time analytics** (300+ daily requests).
  • Enabled user-specific logo uploads using **CDN**.
  • Designed in Figma and implemented Front-end UI from scratch in **React**.
  • Deployed on **Azure VM** with **Nginx** reverse proxy with rate-limiting , 99.9 percent uptime and custom domain.

GeoAR - *Tech Stack* : Unity , Vuforia , Android   *Github*
Mercer Mettl Visionary Hackathon 4th Place
  • Built an AR geography app using **Unity/Vuforia** with 3D terrain, rivers, and cultural overlays on India's map.
  • Simplified complex concepts via intuitive touch controls, enhancing accessibility for Indian students.

CERTIFICATIONS

- Completed Udacity's **GenAI Nanodegree** as a **Bertelsmann Tech Booster Scholar**   **Jan 2025 – Aug 2025**
  gaining hands-on experience in fine-tuning foundation models, **LLMs**, **RAG**, **Transformers**,
  Vision models, **LangChain**,**Vector databases** and building custom AI solutions like chatbots and a real-estate agent.

SKILLS

  • **Languages**: Python, Javascript, C++, C, Typescript, Java
  • **Frameworks and Libraries** : Express.js, React.js, Django, Flask, Passport.js,FastAPI
  • **Databases**: PostgreSQL, MySQL, MongoDB
  • **Softwares And Tools**: Github, Firebase, Supabase, Unity, Blender , Figma
  • **Cloud / DevOps**: Microsoft Azure, AWS EC2, AWS RDS , Nginx

COMMUNITY LEADERSHIP

Head of AR & VR Cluster | Developer Community Sastra , SASTRA University | Thanjavur, India   **Aug 2024 – Jun 2025**

- Led teams with 20+ people. Built apps and websites as part of community projects. Did 3D modeling in Blender. Built games in Unity, filters, and AR experiences using Google AR Core. Conducted, organized and taught in multiple workshops with 100+ participants.