Rishimithan Kannan

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Career Objective

To leverage my skills in full-stack development and AI integration to build impactful, scalable solutions, while continuously growing as a software engineer through challenging and meaningful work.

Academic Qualification

Bachelor of Technology in Electronics and Communication Engineering Sastra Deemed University, Thanjavur, Tamil Nadu — 2020 – 2024

CGPA: 7.92/10

Work Experience

Graduate Engineering Trainee, PSIOG Digital (P) Ltd, Chennai — Aug 2024 – Feb 2025

- Acquired expertise in HTML, CSS, JavaScript, and React.js for frontend web application development
- Transitioned into backend API development using C# and designed relational databases
- Gained hands-on experience in cloud computing using AWS and Azure, focusing on deployment and infrastructure optimization
- Developed a secure and scalable digital application for law enforcement using RESTful APIs and AWS, enabling safe data exchange
- Integrated AWS services: SNS and SES for real-time alerts, and AWS Chime SDK for video conferencing among officers
- Built a car vendoring platform using Azure, leveraging Azure AI for machine learning-based vehicle recommendations and pricing
- Used Azure SQL Database for scalable data storage, built RESTful APIs, and visualized insights with Power BI for real-time analytics

Academic Projects

RAG Application with Firebase Authentication — June – July 2025

Designed and deployed a full-stack RAG application integrating OpenAI's GPT model with semantic search capabilities for intelligent document-based Q&A. Implemented document chunking and embedding via HuggingFace Transformers, stored vectors in Pinecone, and built a responsive frontend using Streamlit. Secured user access through Firebase Authentication and managed real-time user data using Firebase Realtime Database. Enabled context-aware generation for domain-specific queries with an intuitive UI.

Antenna Impedance Matching Circuit Using a Shallow Learning Model — Feb – May 2024

Developed a shallow learning model for adaptive antenna impedance matching that dynamically reduces impedance mismatch, improving wireless performance. The model was trained and validated using collected antenna data.

File Processing Project using AWS — Dec 2023 – Jan 2024

Automated file processing by designing a serverless architecture with AWS services including API Gateway, S3, Lambda, DynamoDB, and SNS, implementing real-time notifications for efficient workflow.

Inverse Estimation of Antenna Array Directivity Using Adjoint Neural Network — Feb – May 2023

Created a multibranch artificial neural network to estimate antenna directivity from electromagnetic parameters, addressing the inverse problem of nonuniqueness through directional derivatives and segmentation, ensuring accurate predictions independent of forward modeling.

Chat Application using Socket Programming — Aug – Dec 2022

Developed a real-time multi-client chat application using Python sockets, implementing multithreading for concurrent users, and ensuring secure message exchange.

Technical Skills

Languages: Python, C++, C#, JavaScript, Java
Database: MySQL, Pinecone (Vector Database)
Cloud: AWS, Microsoft Azure
Data Science: Machine Learning, Neural Networks
Frontend: HTML, CSS, React.js, Streamlit UI
Visualization: Power BI, IBM Cognos Analytics

Certifications

- Machine Learning by Andrew Ng, Coursera (8 weeks, 2022)
- Data Visualization and Dashboard with Excel and Cognos Analytics, Coursera (4 weeks, 2022)
- Python for Data Science, AI, and Development, Coursera (25 hours, 2022)