KARTHIK RAJA

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Education

Northeastern University, Boston   **August 2025**
Master of Science in Engineering Management

CMR University, Bangalore   **August 2017 – August 2021**
Bachelors of Engineering in Electronics and Communication

Technical Skills

Programming Languages: Python, Java, C, .NET
Query Languages: SQL, JQL, PL/SQL
Tools: Kubernetes, Docker, Airflow, JIRA, Gantt Project, Power BI, Tableau
Cloud Services: AWS, GCP
Management: Agile, Lean
Web Services: HTML, XML, JSON, CSS

Experience

Homesite (American Family Insurance), Boston, USA   **May 2024 - November 2024**
Product Owner Intern

- Collaborated with data scientists, engineers, and business stakeholders to define and prioritize requirements for machine learning models and analytics pipelines, ensuring alignment with business goals and customer needs
- Owned and refined the product backlog in JIRA, ensuring clarity, prioritization, and traceability of user stories, reducing ambiguity in the workflow by 15%
- Conducted Knowledge Transfer (KT) sessions to demo new automation rules, ensuring smooth transitions between teams and enabling faster adoption of automation practices, increasing team efficiency by 20%
- Ensured model deployment requirements (batch, real-time) were well-defined and integrated into downstream systems, improving sprint completion rates by 15%

Tata Consultancy Services(TCS)   **August 2021 – August 2023**
Software Engineer

- Developed and deployed custom Python/Shell scripts to automate the filtering and parsing of log data from over 500 networking devices, resulting in a 30% reduction in manual log review time and a 15% faster detection of critical system faults
- Managed system administration for critical telecommunication services on a virtual server via PuTTY, successfully maintaining 99.9% service uptime and ensuring 100% data integrity for daily log ingestion and analysis
- Collaborated directly with the PMO to maintain agile status and track delivery for 4 cross-functional teams, consistently ensuring that 95% of planned sprints met their targeted commitments and Key Performance Indicators (KPIs)

Projects

Founder, Pose Detector WebApp | *Python, HTML, CSS, JavaScript,Demo*   **January 2024 – Present**
- Innovated an application to detect over 5 yoga poses and provide estimation on the accuracy of poses using the Mediapipe library
- Collected and cleaned data over 1000 images of training and testing data for the yoga poses, trained the model to classify between different poses using SVM, and optimized the accuracy further by deploying RCNN and LSTM by 20%

AI Chatbot Developer, Northern Suites, Demo | *Automation*   **Dec 2023 – February 2024**
- Developed a customer-facing chatbot using the **OpenAI API** to handle FAQs, order inquiries, and product recommendations tailored for a retail business context.
- Implemented **Retrieval-Augmented Generation (RAG)** by integrating a lightweight search mechanism over a local `knowledge.json` file, enabling context-aware and scoped responses based on business-specific knowledge.
- Deployed the chatbot on a shared hosting environment via **Hostinger**, optimizing performance for low-cost infrastructure and integrating the chatbot with the business's existing website front-end.

Certificates

- AWS Certified Solutions Architect: b83b7ae2536e415ca1dbf352fa7cb112
- Certified Scrum Master: Scrum Alliance - 001733875