

KARTHIK RAJA

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Education

Northeastern University, Boston

Master of Science in Data Analytics

Expected May 2025

GPA: 3.8

CMR Institute of Technology, Bengaluru

Bachelor of Engineering in Electronics and Communication

August 2021

Technical Skills

Programming: Python, Java, C, JavaScript, SAS, R, PowerShell

Databases/Big Data: SQL, PostgreSQL, MS SQL Server, MongoDB, Hadoop, Spark Streaming, Kafka, Snowflake, Cassandra

Visualization: Tableau, PowerBI, MS Excel

Cloud: AWS (EC2, S3, Lambda, EMR, RDS), GCP, Azure Synapse, Databricks

Experience

Homesite (American Family Insurance), Boston, USA

May 2024 - Dec 2024

Process Improvement 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

Aug 2021 – Aug 2023

Data Engineer

- * Led ETL pipeline creation on AWS EMR clusters, boosting data processing speed by 20% with Spark and Kafka.
- * Integrated REST APIs with Kafka for real-time data ingestion from legacy systems.
- * Built NoSQL data aggregation pipelines in MongoDB to support ad hoc data needs.
- * Worked with leadership to establish Agile processes, improving team delivery speed by 30%.

Northern Suites

Aug 2020 – Dec 2020

Data Analyst Intern

- * Developed SQL Server + PowerBI reporting infrastructure, improving customer insights by 18%.
- * Designed A/B experiments for marketing optimization, increasing click-through rates by 27%.
- * Deployed ML models predicting customer behavior, boosting engagement by 19%.

Projects

Yoga Pose Classification (PoseFit) | Python, Mediapipe, RCNN, LSTM, OpenCV, Flask

posefit.net

- * Built a web app to classify and evaluate yoga poses, trained on 1000+ labeled images across 7+ poses.
- * Enhanced classification accuracy by 20% with RCNN and LSTM models.
- * Delivered real-time text feedback via OpenCV, reducing dependency on physical trainers.

AI Chatbot Agent using RAG (Northern Suites) | Python, OpenAI API, SQL, Vector DB

northern-suites.in

- * Developed Retrieval-Augmented Generation (RAG) chatbot to automate customer FAQs.
- * Integrated vector database for semantic search and contextual responses.
- * Automated 70% of repetitive queries, improving response time and customer engagement.

Certifications

- * AWS Certified Solutions Architect – Associate (Credential ID: b83b7ae2536e415ca1dbf352fa7cb112)
- * Certified Scrum Master (Scrum Alliance)
- * Data Science with Python – IBM Certified (2027292)