

ASHWIN KUMAR

ak1998kumarr@gmail.com . 8939491144 . github.com/BAshwinKumar98

EDUCATION

- Bachelor Of Engineering in Electrical And Electronics Engineering, Anna University Affiliation, expected to graduate in July 2020,CGPA 7.6
- Higher Secondary Certificate in Science Stream, Kola Perumal Chetty Vaishnava Senior Secondary School, in May 2016
- Secondary School Certificate , Kendriya Vidyalaya Anna Nagar, in May 2014

INTERNSHIP EXPERIENCE/ONLINE COURSE

Intern – National Institute of Wind Energy

June 2018

- Worked under the Director and Group Head of NIWE, Chennai .
- Developed skills in Data Centre Equipments used in Wind Energy Technology.
- Review Calculation of Energy saving and verification of equipment specification.

Intern – Cognizant Technology Solutions

Dec 2019 – April 2020

- Collaborate within an Agile team structure where they will assist with developing code using technologies such as: Java, Spring, JavaScript
- Knowledge of JavaScript Framework to create rich interactive content
- Developed knowledge on Web Application on HTML/CSS and JavaScript.

PROJECTS

Aurdino Based Gesture Controlled Gun

July 2018

- Designed to control a military gun remotely using hand Gesture.
- Presented the Topic in E-Cube conducted by Meenakshi Sundararajan Engineering College.
- The system is used to reduce death risk of Soldier.

COURSES COMPLETED

IBM AI Developer Professional Certificate

- Successfully completed the **IBM AI Developer Professional Certificate** from Coursera to strengthen my understanding of AI fundamentals, machine learning, and AI application development.

ACHIEVEMENTS

- Awarded the **Emerging Talent Award** by **Sutherland** for exceptional performance in Machine Learning implementation in 2024, recognizing my contributions and successful application of ML techniques to deliver impactful solutions.

Experience – Sutherland Global Services

- Project V – AI Dashboard / BOT Jan 2025 – Till Date
 - Domain: Procurement
 - Role: Data Scientist
 - Developed a **BOT** to showcase outcomes for **Duplication, Approver Suggestion, and Anomaly Detection** in a procurement context.
 - Gained experience with basic **frontend technologies** such as **JSP, HTML, and JavaScript** for UI integration.
 - Automated workflows using **Prefect Pipeline**, scheduling jobs to auto-trigger data extraction from SQL, feature engineering, model training, and UI integration through **Java APIs**.
 - Structured the **Python project** for version consistency across environments, using **YAML** files for environment management.
 - Stored **embeddings** in **PostgreSQL** to optimize performance and facilitate fast retrieval for duplication detection tasks.
 - Experienced in developing a **BOT** with **Java APIs** for backend integration, implementing **ML concepts in Python**, and delivering a complete end-to-end solution with **UI** integration.

- Project IV – AI Suggestion/Recommendation Model April 2024 – Dec 2024
 - Domain: Procurement
 - Role: Data Scientist
 - Converted raw data into embeddings to feed the dataset into **RAG (Retrieval-Augmented Generation)** models, ensuring effective interaction with LLMs.
 - Utilized the **LangChain** library for seamless integration and communication with LLMs like **Llama 3.2, GPT-2**, and others, enabling efficient data retrieval and response generation.
 - Experienced in implementing **RAG** concepts to combine document retrieval with generative language models for enhanced suggestion and recommendation systems.
 - Applied **prompt engineering** techniques to fine-tune inputs and guide the LLMs in generating relevant recommendations and suggestions for users.
 - Conducted research on various recommendation concepts, including **Content-Based Recommender Systems, Collaborative Filtering, and K-Nearest Neighbors (KNN)**, selecting the best methods for the use case.
 - Developed and implemented the **RAG model** using **PyCharm**, ensuring smooth workflow and iterative improvements.
 - Gained hands-on experience with **Agent AI** frameworks and developed initial prototypes to explore automation and decision-making through AI agents.
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- Project III – AI Anomaly Detection Jan 2024 – March 2024
 - Domain: Procurement
 - Role: Data Scientist
 - Experienced in data featurizing for anomaly detection, preparing datasets for accurate prediction and trend analysis and conducted extensive research on various anomaly detection concepts.
 - Utilized **Autoencoders** to reconstruct vendor data graphs and predict unusual trends, detecting anomalies effectively.
 - Applied the **Prophet model** to predict user behavior, particularly in forecasting which document type a user is likely to opt for. Displayed anomaly detection results and predicted trends through **front-end graphs**

- Project II – AI Duplication Detection

Sept 2023 – Dec 2023

- Domain: Procurement
- Role: Data Scientist
 - Performed data featuring by extracting invoice data from an SQL database to prepare datasets for analysis and model development.
 - Utilized Python libraries such as **NumPy**, **Pandas**, and **Scikit-learn** for data manipulation, cleaning, and feature engineering.
 - Applied machine learning (AI/ML) algorithms, including **K-means**, **MiniBatch K-means**, and **DBSCAN**, to detect and classify duplication and potential duplication in invoices.
 - Leveraged the **RecordLinkage** library to perform record matching and identify duplicate records efficiently.
 - Developed machine learning models using the **PyCharm** IDE, optimizing workflows and enhancing productivity.

- Project I – Bulk Invoice Download

March 2023 – Aug 2023

- Domain: Procurement
- Role: Java Backend Developer
 - Utilized Spring Scheduler to automate and schedule tasks for downloading bulk invoices at specified intervals based on business requirements.
 - Developed the backend logic using Java, ensuring seamless integration with other modules and maintaining high performance in data processing.
 - Designed and implemented APIs to fetch invoice data from an SQL Server database, ensuring optimal queries for efficient data retrieval.
 - Implemented error handling and logging to ensure smooth execution and quick troubleshooting of download tasks.

Experience – Cognizant Technology Solutions

- Project I – Pacific Life Genius 2.0 Dev

Nov 2020 – April 2021

- Domain: Insurance
- Role: Java Developer
 - Support production systems and troubleshoot Developed Code defects to remediate issues and ensure Code operational stability.
 - Experience with developing REST API using Java/SQL
 - Managing the impact assessment of proposed change in the integrated technology environment, in particular understanding the impact of proposed changes on all Developed Code
 - Ensuring that all changes are designed and implemented using best practice.
 - Has an understanding of the overall development process and software delivery lifecycle (Agile)

- Project II - Nationa-NLG-Apps April 2021 – Aug 2021
 - Domain: Insurance
 - Role: Java API Developer
 - Experience with REST API using Spring Boot/Apache Camel
 - Experience with Java, Spring/Spring Boot, Hibernate, SQL queries, Unit testing with JUnit
 - Experience in building RESTful Mobile App (Android & IOS) services using Spring framework.
 - Experience with Push Notification Java API in Mobile Application with Microsoft Azure.
 - Experience in developing Two Way Communication API in Mobile Application.
 - Database experience with SQL Server writing SQL queries to extract data for application development
 - Demonstrate highly effective communication, interpersonal, and teamwork skills
 - Experience with API.
 - Hands on experience in Development and deployment in various environments (SIT/UAT)
- Project III - Nationa - Apps build Aug 2021 – March 2023
 - Domain: Insurance
 - Role: Java API Developer
 - Experience in creating Digital Application for in force policies using Java & Spring Boot.
 - Experience with REST API using Spring Boot/Apache Camel
 - Enhancements to improve the code efficiency using Apache Camel.
 - Deployed Code using git hub repository using CI/CD pipeline.
 - Experience in Testing with Junit 4 for the created Endpoints.

TECHNOLOGY SUMMARY

Cognizant:

- **Intermediate knowledge in Java 8, REST APIs, and Spring Boot**
- **Intermediate experience with MySQL** for database management and integration
- **Basic understanding of Apache Camel** for routing and integration tasks
- **Intermediate knowledge of CI/CD Jenkins Pipelines** for automating deployments
- **GitHub Repository for Committing the Code**
- **Unit Testing with JUnit** to ensure high-quality code

Sutherland:

- **Intermediate knowledge in in Java 8, REST APIs, Spring Boot and Spring Scheduler** for task scheduling
- **REST API development and integration**
- **Experience with SVN Repository** for Committing the Code
- **Proficient in MS SQL** for database management
- **Proficient in Python, PyCharm, and machine learning libraries** (NumPy, Pandas, Scikit-learn), with hands-on experience in **RAG (Retrieval-Augmented Generation) models** and **Langchain** for LLM integration (e.g., Llama 3.2, GPT-2).
- **Experienced in automating workflows using Prefect Pipeline**, conducting research, and prototyping with **Jupyter Notebooks**.
- **Working knowledge of PostgreSQL** for efficient embedding storage and retrieval, along with **LLMs** for advanced prediction and recommendation tasks.