

OMKAR GAVALI

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Omkar-Gavali

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Berlin, Germany



EXPERIENCE

AI in Controlling - Intern

KWS Group

12/2024 - 05/2025

Berlin, Germany

- Implemented AI and automation solutions across GTC-Controlling to enhance process efficiency
- Automated Scripts for improving Quality checks and building Invoices

ML Research Assistant - Werkstudent

Fraunhofer FOKUS

04/2024 - 10/2024

Berlin, Germany

- Implemented a Retrieval Augmented Generation (RAG) system using open source Large Language Models (LLMs) and LlamaIndex to process a database of 200+ 3GPP specification documents
- Automated labor intensive document searches by deploying a chatbot on the company's intranet
- Gained hands on experience with Linux and DevOps practices such as Git versioning and shell scripting

Artificial Intelligence Researcher - Intern

Brose Fahrzeugteile

09/2023 - 03/2024

Bamberg, Germany

- Conducted a proof of concept for Azure Intelligent Document Processing to automate the management of internal documents, using metrics based evaluation for response relevance
- Integrated Splunk's AI capabilities with AWS CloudWatch, laying the groundwork for improved anomaly detection
- Engaged in forward thinking research on emerging AI/ML technologies like vanna.ai and GitHub Copilot, contributing to the company's innovation pipeline

Data Analysis using Power BI - Werkstudent

HPS Home Power Solutions AG

11/2022 - 04/2023

Berlin, Germany

- Designed dashboards and reports in Power BI for monitoring the performance of solar plants installed across multiple sites
- Automated report generation workflows using Power Automate and Microsoft Power Applications to enhance efficiency

Customer Support Officer

Mphasis

05/2021 - 11/2021

Pune, India

- Ensured seamless operations and the prevention of query backlogs through meticulous tracking and management
- Supported negotiations between German customers and merchants

Operations Executive

Infosys

06/2019 - 09/2019

Mysore, India

- Utilized SQL for adept data retrieval and manipulation, contributing to enhanced database and server management
- Applied Python programming skills to create automation scripts, boosting data analysis efficiency and process optimization

EDUCATION

M.Sc. Professional IT Business and Digitalization

Hochschule für Technik und Wirtschaft Berlin

📅 10/2022 - 12/2024

📍 Berlin, Germany

Thesis Title: Information Retrieval from Large Collections of Local Documents Using Large Language Models: RAG Approach **Grade:** 1.4 (1 being the highest out of 5)

B.Sc. Physics

Savitribai Phule Pune University

📅 07/2016 - 06/2019

📍 Pune, India

Subject of Interest: Physics, Mathematics

PROJECTS

NutriBot AI Chatbot Demo

Github Project

📅 04/2025

- A scalable conversational AI Chat bot based on Nutritional properties of Fruits and Vegetables using Groq LLM API via FastAPI, capable of handling numerous PDFs. It integrates open source HuggingFace embeddings and Chroma vector store for efficient document indexing and retrieval
- Retrieval Augmented Generation (RAG): Enhances responses by combining semantic search from a vector database with LLM generated answers, ensuring accurate and context aware information extraction. The system is deployed using Docker and features a front end built with Node.js for a seamless user experience
- Live demo: NutriBot , Github repo: Omkar-Gavali

CI/CD Flask App with GitHub Actions & Docker

Personal Project

📅 03/2025

- Implemented an automated CI/CD pipeline using GitHub Actions to build, test (via Pytest), and deploy a Dockerized Flask app
- Leveraged Docker containerization to ensure consistent behavior across development and production environments

Automatize ML on Germany's Pollution

HTW Berlin

📅 04/2023 - 09/2023

- Focused on PM10 air quality prediction using a combination of Machine Learning (ML) and AutoML techniques
- Included data processing, feature engineering, model training, and evaluation

SKILLS

Programming & Scripting:

Python, R, Linux, SQL

Data Science & Machine Learning:

Machine Learning, NLP, Time Series Analysis, MLflow

Libraries & Frameworks:

NumPy, Pandas, PyTorch, OpenCV, FastAPI, Git, LlamaIndex

Cloud & DevOps:

AWS, Azure, GCP, Docker

Visualization & Productivity:

Power BI, Power Apps, Microsoft Office

LANGUAGES

English



German

