





Morris Darren Babu

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CAREER HIGHLIGHTS


Structured AI/Data Specialist skilled at transforming and automating complex data workflows. Proficient in AWS, Azure, Docker for DevOps operations. Expert in analytics, machine learning, deep learning, and interactive data visualization for actionable insights. Drives innovation through agile collaboration and Industry 4.0 frameworks.

PROFESSIONAL EXPERIENCE


- 04/2025 – 09/2025
Ingolstadt,
Germany

Volkswagen Group (CARIAD), Master Thesis - Integrating LLMs In Automotive Systems 


 - Automated test-case generation via local Docker-deployed LLMs boosted test coverage **7%**, cut manual effort, and sped security validation in CI/CD/CT pipelines.
 - Implemented AI-driven black-box fuzzing in Azure AI Foundry, boosting code-flaw detection by **13%**, strengthening ECU resilience, and reducing cybersecurity threats.
 - Developed an AI agent for time-effect analysis in security tests, cutting execution delays by **4%**, improving efficiency, and optimizing automotive software evaluation.
- 10/2024 – 03/2025
Munich, Germany

BMW Group, Data Science Internship (specialized in AI/ML and LLMs) 

 - Architected an auto-suggestion model using RAG to identify part issues (via text or image inputs) and recommend solutions, increasing diagnostic precision by **12%**.
 - Deployed surface detection model on AWS SageMaker with EC2 & S3, used semantic segmentation and adaptive FP rectification, boosting accuracy, served via API.
 - Designed a proof-of-concept for LLM optimization through hyperparameter fine-tuning and improved file ingestion, implementation delivered **8%** faster processing.
- 10/2021 – 09/2022
Chennai, India

Crystal Consultancy Services, Data Analyst 

 - Monitored and analyzed key performance indicators (KPIs) using SAP R3 data, resulting in a **4%** improvement through targeted data-driven decisions.
 - Applied Azure Databricks to address slow data processing in the ETL pipeline, optimizing feature engineering and model deployment, enhancing speed by **25%**.
- 02/2021 – 07/2021
Texas,
USA (Remote)

Altascio Technologies, Data Engineering Internship 

 - Utilized Excel techniques (Pivot, VBA, VLOOKUP, SUMIFS) to streamline manual aggregation of department spreadsheets, reducing report generation time by **2%**.
 - Streamlined data extraction and consolidation using SQL to resolve fragmented inventory data—saving 20 hrs/week and reducing inventory update time by **11%**.

TECHNICAL SKILLS

Python (Scikit-learn)

R

C++

JavaScript

Computer Vision

TensorFlow, PyTorch

Gen AI (Prompting, GPT, GAN, VAEs, LangChain)

SQL

Snowflake

Power BI

S/4 HANA

AWS Web Service (Aurora, CloudWatch)

Azure (Spark, Data Factory, Data Lake)

Git

Jenkins

SOFT SKILLS

Analytical Thinking

Communication

Independent

Teamwork

Solution-oriented

EDUCATION

10/2022 – present

M.Sc. in Data Science, *Friedrich Alexander University Erlangen-Nuremberg* [!\[\]\(3211b5d1d968fc1665909b34f9f16010_img.jpg\)](#)

CGPA: 2.5/4.0

Subjects [!\[\]\(c50c8b7b2cc2cf9ff925edec0ee94c0d_img.jpg\)](#) : Pattern Recognition, Deep Learning, Generative Artificial Intelligence, Anomaly Detection, Decision Theory, Reinforcement Learning, Statistics, ML in Finance.

06/2018 – 06/2022

B.E. in Computer Science Engineering, *Rajalakshmi Institute of Technology, India* [!\[\]\(9c2e8d1b5bd77cb5c9f83b7a9cff79fd_img.jpg\)](#)

PROJECTS

Material Prediction & Mesh Dataset Generation with GNNs (Graph Neural Networks) [!\[\]\(f60b7a900783ac3fd531bfd9c111be6d_img.jpg\)](#)

Engineered a custom GNN framework, built a comprehensive synthetic dataset of shape and material data, predicts wear with RMSE under **0.1**, supports efficient end-to-end shape generation and graph visualization.

OCR with Handwritten Recognition and Auto Spelling Correction, *Bachelor Thesis* [!\[\]\(235bfe13ebf007ce2eea9e689707fac7_img.jpg\)](#)

Implemented an NLP-based automatic spelling correction system using text tokenization, language modeling, and Tesseract OCR, creating a scalable REST API that boosted accuracy by **89%** for multilingual documents.

PUBLICATIONS

Movie Recommendation System using Hybrid Filtering, *Morris Darren Babu* [!\[\]\(166772600a13ad0a433053f90fe45649_img.jpg\)](#)

Created a hybrid recommendation system using collaborative and content filtering with clustering, achieving **92%** accuracy and integrating it into a Flask-based web app for real-time user recommendations [!\[\]\(291e070cef6c4d5e78fefe4696ef53be_img.jpg\)](#).

CERTIFICATIONS

Excel to MySQL: Analytics and Regression Techniques for Business Intelligence [!\[\]\(f507db636256ac11a5525ef93ec6b8d7_img.jpg\)](#)

Google Cloud Platform (GCP) IT Automation with Python Specialization [!\[\]\(a8ff699ced33317c53c86f9bf3171905_img.jpg\)](#)

Data Engineering, Data Warehousing, Big Data, and Machine Learning Algorithms Specialization [!\[\]\(066cb4a00c9d9f40edb6f87372ec6f08_img.jpg\)](#)

Deep Learning AI TensorFlow Developer Specialization [!\[\]\(aceb1790ece33f2eac474d4a9431c6d6_img.jpg\)](#)

ACCOMPLISHMENTS

Predictive Data Analytics for Business Intelligence Nanodegree, *Udacity* [!\[\]\(26cddea01ddf7f002af4ba779c4999ee_img.jpg\)](#)

Devised **25+** analytical datasets during a 10-month Udacity Bertelsmann Scholarship, utilizing statistical modeling, classification, time-series forecasting, and A/B testing to improve analytical efficiency by **17%**.

Research Project in Open-Source Software for Advanced Data Engineering Techniques, *OSS Group* [!\[\]\(1adebd97b172010e8ebc985144647a7c_img.jpg\)](#)

Employed time-series data engineering techniques in a 6-month open-source project to predict Germany's GDP from 1970 to 2022, examining the correlation between inflation and GDP with an **85%** reliability rate.

LANGUAGES

English

C1 (Business fluent)

Deutsch (German)

A2 erworben, B1 laufend [!\[\]\(7fc7a78d681c65e5eab75b70bb438816_img.jpg\)](#)

French

A2