

MAYOORA NAIR

Data Scientist

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Location: Ingolstadt, Germany

Work Permit: Authorized to work in Germany

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PROFESSIONAL SUMMARY

A motivated professional with a background in data analysis, machine learning engineering and system development. Skilled in programming, data pipeline automation and various machine learning frameworks. Experienced in developing data-driven solutions that improve system performance and production efficiency. Eager to apply my skills while continuously learning, growing and supporting innovation.

EDUCATION

Master of Science in Data Analytics | Universität Hildesheim, Hildesheim **04/2023 - 03/2026**

- Focus: Applied Machine Learning, Data Science, Neural Networks, Model Development & Optimization
- Master Thesis: Optimising Active Learning Through Uncertainty Estimation and Out-of-Distribution Detection
- Grade: 2,2

Bachelor of Science in Computer Science | Universiti Putra Malaysia, Selangor **09/2018 - 09/2022**

- Focus: Computer Science, Software Engineering, Databases, Programming
- Bachelor Thesis: A Face Recognition Attendance System for the Workplace
- Grade: ~1,1 (in the German Grading System)
- Exchange Semester at Ostbayerische Technische Hochschule (OTH) Regensburg **03/2022 - 08/2022**

EXPERIENCE

Infineon Technologies AG, Regensburg

Master's Thesis Student **05/2025 - 12/2025**

- Developed and optimized an active learning framework in Python and PyTorch to identify the most informative data instances for labeling and model training.
- Built scalable machine learning pipelines for dataset preprocessing, feature engineering and model training on large datasets.
- Applied statistical analysis and data exploration techniques on a time series dataset.
- Led to the reduction of training labeled data by 40%-60%, while maintaining model performance, thus lowering labeling costs and improving model efficiency.

Working Student Data Science **05/2023 - 03/2025**

- Designed and built an anomaly detection backend architecture in Python, integrating multiple algorithms to enable reliable outlier detection in a dataset.
- Implemented feature importance analysis using tree based models to identify key features and support data-driven decision making in the production scenario.
- Collaborated with a team member and developed a trend detection system in Python to automatically monitor and detect abnormal changes in production processes, leading to earlier detection of changes and faster response times.
- Developed data pipelines for processing large datasets (tabular, sensor, time series data)
- Applied testing, debugging and version control (Git) to ensure system reliability.

- Engineered anomaly detection pipelines using unsupervised learning models to identify outliers in production data.
- Developed data visualizations using Matplotlib and Seaborn to monitor anomalies and report results.
- Built supervised machine learning predictive models using Python to support data-driven decision making.
- Prototyped dimensionality reduction techniques (PCA) and Autoencoders (using TensorFlow), integrating them into Python workflows for data exploration and model improvement.

TECHNICAL SKILLS

- **Programming:** Python, R, Java, Flutter, HTML, CSS
- **Software Development:** Backend Development, Data Pipelines, Data Processing, Object Oriented Programming, Documentation
- **Machine Learning & AI:** Deep Learning, Neural Networks, Supervised & Unsupervised Learning, Anomaly Detection, Statistical Analysis, Data Cleaning & Preprocessing, Feature Engineering
- **Machine Learning Frameworks:** PyTorch, TensorFlow, scikit-learn, Keras, OpenCV, numpy, pandas
- **Databases:** Relational Databases, Oracle, SQL
- **Cloud, Development & Version Control:** Git, Bitbucket, MLflow, Microsoft Azure, VS Code, PyCharm, GitHub Copilot
- **Data Visualization & Tools:** Matplotlib, Seaborn, Tableau, Power Bi, Dashboard Development, Excel

LANGUAGES

- English - Native
- Bahasa Melayu - Fluent
- German - Good Knowledge
- Spanish - Basic Knowledge

HOBBIES & INTERESTS

- Playing the piano and guitar
- Cycling
- Gardening

Ingolstadt, 21.07.2026



Mayoora Nair