Nivedita Patil

Master of Science - Computer Science

SKILLS

Programming Languages:
Python, SQL, PL/SQL, SPARQL, C, C++, JavaScript, PHP, HTML/CSS

Machine Learning & Deep Learning:
TensorFlow, Keras, PyTorch, Scikit-learn, LLMs

Data Analysis & Visualization:
Pandas, NumPy, Matplotlib, Seaborn, Plotly, Bokeh, Dash, VertexAI, Tableau, Power BI, BigQuery

Cloud Platforms:
Amazon Web Services (AWS), Microsoft Azure, Google Cloud Paltform

DevOps & Containerization:
Docker, Kubernetes

Database Technologies:
GraphDB, SQL, Octoparse

Data Processing:
Hadoop

Tools & Version Control:
Git

Operating Systems:
Windows, Linux

PROFILE

Driven Computer Science professional with a Master's degree from Germany and 2 years of hands-on experience in the Software Industry. Specializing in Machine Learning, Deep Learning, and Data Visualization, I bring expertise across diverse domains, including Time-Series Analysis, Knowledge Graphs, Natural Language Processing (NLP), and Computer Vision. Passionate about harnessing the power of AI to develop innovative solutions for complex challenges. Eager to join a dynamic team to contribute my skills and knowledge, driving data-driven decision-making and groundbreaking advancements.

PROFESSIONAL EXPERIENCE

Schulz Systemtechnik GmbH
Working Student - Data Science

October 2023 – March 2024 | Frankfurt, Germany

- **Optimized machine learning model** using **Python and TensorFlow/Keras** to improve the efficiency of sorting bottles, resulting in a **10% increase** in sorting accuracy.
- **Deployed machine learning models** and data processing workflows on Microsoft Azure, utilizing **Azure Machine Learning** and **Azure Data Factory** for seamless integration and automation
- **Conducted exploratory data analysis (EDA)** on generated triplets using **Pandas, dplyr, Plotnine and NumPy** to enhance data quality and ensure robustness.

Procter & Gamble Germany GmbH
Working Student - R&D in AI and Machine Learning

April 2023 – September 2023 | Schwalbach am Taunus, Germany

- **Implemented a 3D semantic segmentation model** with **PyTorch** to **enhance the identification accuracy** of fibers and binders by **20%.**
- **Analyzed the performance of semantic segmentation models** and enhanced performance through fine-tuning techniques in **TensorFlow/Keras**, achieving a **15% improvement in segmentation accuracy.**
- **Utilized Hadoop** for storing, processing, and analyzing large volumes of data.
- **Developed a prompt-based synthetic data generation model** using **Generative AI** techniques to boost **data augmentation** and expand the training dataset resulting in more **robust model training**.

Syskron GmbH
Working Student – Data Science

September 2022 – February 2023 | Regensburg, Germany

- **Analyzed blow-moulder machine data** using **SQL, Pandas and Numpy** to identify root causes and evaluate process and sensor quality, leading to **a 15% improvement in machine efficiency.**
- **Monitored machine learning model** performance using **Scikit-learn** to ensure optimal accuracy and performed root cause analysis.
- **Managed data storage and retrieval** using **AWS S3**, ensuring secure and efficient data handling
- **Tracked blow-moulder machines' performance** via time series data analysis using **Bokeh, Pandas, and NumPy**, **enhancing predictive maintenance and reducing downtime**.

Brox IT- Solutions GmbH
Working Student – Machine Learning and Data Management

January 2021 – August 2022 | Mannheim, Germany

- **Implemented classification algorithms** using **Scikit-learn** to differentiate web pages and industrial machines, **improving classification accuracy by 25%.**
- **Developed an NLP-based parser** for email signatures using **Python and NLP techniques**, automating data extraction and increasing efficiency by 50%.

ORGANISATIONAL SKILLS

Organized 'Life on Cloud' event by google as a member of Google Student Club. •
Organized 'Web Extreme' at National Tech Fest. •
Designed a JAVA application for an event 'Who Wants to be a Millionaire' spin off

SOFT SKILLS

Collaboration & Cross-Functional Teamwork

Communication Skills

Attention to Detail

LANGUAGES

English — *C2*, **German** — *B1 (currently B2)*

- **Integrated clinical trial data and news data** using **SPARQL** to create healthcare knowledge graphs, providing valuable insights for healthcare industries.
- **Utilized machine learning algorithms** with **Python** to categorize job postings, **creating relevant knowledge graphs in GraphDB** that **enhanced data organization by 30%**.
- **Presented use cases** on leveraging **AI** and **knowledge graphs** in healthcare industries, demonstrating **potential business benefits** and **securing stakeholder buy-in.**

Accenture
Associate Software Engineer
June 2016 – May 2018 | Bangalore, India

- **Provided support** and **handled maintenance** of applications and database servers using **PL/SQL,** ensuring smooth operations for Merck KgaA Darmstadt, with **99% uptime.**
- **Automated applications** through **Unix, Shell scripting, and Python**, improving process efficiency.

EDUCATION

B. V. B. College of Engineering
Bachelor of Engineering in Information Science
October 2012 – June 2016 | Hubli, India

Rhineland-Palatinate Technical University of Kaiserslautern-Landau
Master of Science in Computer Science
October 2018 – March 2024 | Kaiserslautern, Germany

- First specialization - Intelligent Systems (AI and Machine Learning)
- Second specialization - Data Visualization and Scientific Computing.

PROJECTS

Multi-Target Tracking in Noisy Data using LSTM
Master Project
April 2020 – October 2020

- Developed an LSTM-based Deep Data Association Network that leverages RADAR data and effectively tracks multiple targets in cluttered environments.

Supervised Neural Topic Modeling
Master Thesis
February 2024

- Implemented a supervised neural topic model using a generative model to effectively learn topic representations and classify documents accordingly.