

KUSHAGRA KUMAR

Magdeburg, Germany

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MACHINE LEARNING DATA SCIENTIST

Professional with close to 6 years of experience in the field of data science and software development. Possesses a solid foundation in data-driven methodologies, machine learning algorithms, deep learning, predictive data modeling, and data mining techniques demonstrated through experience in Machine Learning Engineering and Data Analytics positions. Experience in working and leading a group of diverse teammates to deliver optimized and robust solutions for complex business problems.

CORE COMPETENCIES

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|-------------------------|---------------------|--------------------------|
| ▪ Python (Numpy/Pandas) | ▪ Statistics | ▪ Data Visualization |
| ▪ Machine Learning | ▪ Deep Learning | ▪ Data Mining |
| ▪ Generative Modeling | ▪ C++ | ▪ Forecasting |
| ▪ Tensorflow | ▪ Pytorch | ▪ SQL |
| ▪ Scikit-learn | ▪ Git | ▪ Linux |
| ▪ Docker | ▪ Kubernetes | ▪ Scrum |
| ▪ Problem Solving | ▪ Critical Thinking | ▪ Research & Development |
| ▪ A/B testing | ▪ Tableau | |

PROFESSIONAL EXPERIENCE

AUTONOMY ON BOARD GMBH (LIVIL.CO) | GERMANY | OCTOBER 2022 – PRESENT

Data Scientist

- Design and develop NLP solutions for autonomous and high end cars using transformers based deep learning architecture.
- Develop the backend using FastAPI (Python) for the AI/ NLP Solutions and deploy it on AWS.

AIIO GMBH | MAGDEBURG, GERMANY | JAN 2022-JUNE 2022

Data Scientist Working Student

- Entrusted with the responsibility to work with large structured and unstructured datasets concerning the business process management domain to develop predictive and prescriptive solutions using machine learning, deep learning, and process mining techniques and deploy it on Microsoft Azure cloud.
- Develop various feature requirement specification (FRS) documents based on the latest research paper pertinent to the application of Machine learning and deep learning in the BPMN domain.
- Orchestrating Machine Learning Workflows with Prefect 2.0

MBITION GMBH | BERLIN, GERMANY | MAY 2021-OCTOBER 2021

Data Scientist Working Student

- Faced with large datasets comprising of both structured and non-structured data centered on infotainment data, adeptly analyzing data to extrapolate invaluable insights and patterns for developing various machine learning models utilizing techniques like SVM, Random Forest, and Neural Networks.
- Performed feature engineering and various statistical tests to validate different hypotheses, further developed visualization for data results to advance future company research during tenure.
- Required to execute accurate data modeling as a Research Assistant, demonstrated proficiency with Scikit Learn, Python, SQL, Tableau, Pandas, NumPy and Plotly to maximize workplace productivity.

HEWLETT PACKARD ENTERPRISE (R&D) | INDIA | JULY 2015-SEPTEMBER 2019

Senior Software Developer cum Data Scientist.

- Worked directly with multiple clients from telecom domain, ardently employed strong interpersonal and communication skills to derive requirements and transform requirements into key insights, performed various data engineering techniques and developed ML models for understanding customer behaviors and prevention of various frauds utilizing techniques such as SVM, Clustering, Regression, Random Forest.
- Designed and developed multiple Forecasting Models to estimate the active subscribers and system load on 3G/LTE core nodes at Daily and Monthly levels, successfully crafting a solution to forecast the same with preciseness.
- Built various models for price optimization of telecom subscribers in a way that they view them as attractive, fair, and non-arbitrary for the products/subscription they care more about and, on the other, predicting when it is or isn't necessary to offer discounts.
- Monthly and yearly planning of the offers for customers using forecasting techniques, skillfully generated insights, and patterns to contribute to executive decision-making during active employment.
- Created the Machine Learning pipeline for the models, using docker and AWS to shrewdly deploy the scalable solution into production.
- Led and developed various high-end, efficient, and maintainable features for Home Subscriber Server (HSS), the central subscriber database in Long Term Evolution (LTE) Networks, using python and C++ that operate within a Linux cluster using Scrum.

MRO-TEK LIMITED | INDIA | SEPTEMBER 2014 - JULY 2015

Trainee Software Engineer

- Design and develop NMS (Network Management System) that supports various network components using python, C++, Linux system programming, and MySQL as a database.
- Optimized message Round trip in a NMS by 20% by fine-tuning the Database access layer for efficient data retrieval.

SCIENTIFIC PROJECTS

Image Retrieval with Textual Explanation - OVGU.

- Design and develop an image retrieval system that supports users with textual explanation for each item in the ranked list using various high-level and low-level features.
- Language/Tools: Python, Node JS, Java, Tensorflow, Deep learning.

Multi-Agent Reinforcement Learning (MARL) for Collaborative Computer Systems Optimizations – OVGU

- Optimizing QMix and G2ANet MARL algorithms for StarCraft Multi-Agent Challenge benchmark using PyMARL framework.
- Language/Tools: Python, Pytorch, and Deep Learning.

Genre classification of Fiction books using various Machine Learning Techniques – OVGU

- Automatic genre detection for books using the Gutenberg corpus of books.
- Language/Tools: Python, Scikit-learn.

An RP-growth method for discovering interesting Infrequent Patterns - OVGU

- Extract interesting infrequent patterns from both dense and sparse datasets using the RP growth approach and generate and analyze the Statistical measures.
- Language/Tools: Python, Pandas, Numpy

EDUCATION

Otto von Guericke University, Magdeburg, Saxony-Anhalt: Present

Master's in Data and knowledge Engineering (Candidate) – (Grade: 2.2)

- Relevant Coursework: Data Mining, Data Science, Machine Learning, Deep Learning, Advanced topics in machine learning, Reinforcement learning, Learning generative models.

Centre for Development of Advanced Computing, Bangalore, India: 2014

Post Graduate Diploma in System Software Development -- (Grade: 2.15)

- Relevant Coursework: Advanced C/C++ programming, Computer Networks and Security, Parallel programming and Linux system programming.

NMAM Institute of Technology, Nitte, India: 2013

Bachelor of Engineering – Computer Science Engineering – (Grade: 1.67)

- Relevant Coursework: Programming, Data structures and algorithms, DBMS, Heterogeneous parallel computing, and operating systems.

ADDITIONAL CREDENTIALS

LANGUAGES	English (Business Proficiency) / Hindi (Mother Tongue) / German (Basic)
HONORS & AWARDS	<ul style="list-style-type: none">▪ Scholarship Recipient for the Period of April 2021 - March 2022 from OVGU.▪ International English Language Testing System(IELTS) Score:7.0/9 (2019)
VOLUNTEERISM	Member of Enactus OVGU Magdeburg.

Kushagra Kumar

Magdeburg, Germany, 21.01.2023