Shalini Rai

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EDUCATION

[OCT 2022 – PRESENT]

Master of Science / Electrical Engineering
University of Stuttgart, Stuttgart
- Early Detection of Thermal Runaway with Signal Processing.
- Investigation of Neural Equalization-Enhanced Phase Noise Mitigation.

[AUG 2018 – FEB 2019]

Post Graduate Diploma / Big Data Analytics
Centre for Development of Advanced Computing, Pune
- Analysis and Prediction of Road Accidents - Analysed and predicted road accidents using machine learning models and data visualisation, achieving up to 85.32% accuracy. Utilised Hadoop HDFS for distributed data storage and processing.

[AUG 2013 – JUL 2017]

Bachelor of Technology / Electronics and Communication Engineering
Dr. APJ Abdul Kalam Technical University, Lucknow
- Real-time Information-based Air Quality Index Monitor - Designed a module to monitor air quality by detecting carbon-based pollutants and measuring their parts per million (ppm) concentration in the air. Used MATLAB for programming Arduino Uno microcontroller and GSM module to issue alerts to user's phone.

WORK EXPERIENCE

[MAR 2024 – PRESENT]

Working Student, Software Engineering
Philips, Boeblingen
- Research and Development of Hemodynamic Algorithms using Machine Learning for non-invasive measurement of Arterial Blood Pressure.
- Signal Processing and Unit Testing for extracted signal and features.

[JUL 2021 – SEP 2022]

Senior Assistant, Data Science
Deloitte, Bengaluru
- Developed Named Entity Recognition and other NLP & Natural Language Generation solutions for audit and internal control products.
- Involved in Journal Entry regularity and anomaly analysis.

[MAY 2019 – JUN 2021]

Junior Data Scientist
Xcaliber Infotech Pvt Ltd, Pune
- Implemented Sentiment Analysis on data from Social Media websites and News articles using BERT with PyTorch, and NLTK. Deployed Flask API on a remote Linux server.
- Developed E-Commerce Website Mobile Price Forecasting and Web Scraping solutions. Automated the pipelining and performed predictive analysis.
- Performed image manipulation & modelling, visualisation of tensors for Cosmetic Grading Machine.

[JUN 2016 – JUL 2016]

Project Trainee
Larsen & Toubro Ltd, Mumbai
- Worked in the Heavy Engineering Department's Product and Technology Development Centre (Electronics) on the design of Self-Propelled Howitzer K9 Vajra-T.

ACHIEVEMENTS

[2013-14, 2014-15 & 2015-16]

Annual Merit Scholarship - SRMS Institutions, *Bareilly*
Awarded scholarship of merit for three consecutive years.

[APR 2016]

Winner - Zonal Round of Robotryst, *IIT Delhi*
Won zonal-level robotics competition organised by IIT Delhi

EXTRA-CURRICULAR

[SEP 2020 & DEC 2021]

Namibia University of Science & Technology, *Namibia*
Delivered guest lecture on Introduction to Distributed File Systems

[JUL 2020 & DEC 2020]

Volunteer, *Virtual*
Conference on Neural Information Processing Systems (NeurIPS 2020)
International Conference on Machine Learning (ICML 2020)

SKILLS & LANGUAGES

Skills & Interests
Sensor Principles | Information Theory | Signal Processing | Optical and Wireless Communications
AI | Data Science | Machine Learning | Deep Learning | Python | OpenCV | Tableau | SQL | Linux | Git

Languages
English | German - A2 | Hindi