

Saatwik Mandava

Post Graduate Student at University of Glasgow

Data Science student with knowledge in data engineering and cloud computing and prior background in building deep learning models and chatbots. Possesses experience in planning and executing multiple projects and liaising with key stakeholders to identify and resolve business problem statements and deliver excellent results.

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📍 Glasgow, United Kingdom

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TECHNICAL SKILLS

Languages	Python, JavaScript, Java	Databases	MySQL, MongoDB, Neo4j
Data Libraries	Numpy, Pandas, OpenCV, Spacy, NLTK	Machine Learning	PyTorch, Tensorflow, Scikit-Learn
Cloud Computing	AWS EC2, S3, RDS, DynamoDB, Lambda, Connect, API Gateway, Kinesis	Big Data Ecosystem	Spark, Hive, Hbase, Kafka, Docker, Kubernetes
Visualisation	Matplotlib, Seaborn, Tableau	Chatbot Platforms	Kore.ai, Dialogflow, Rasa

WORK EXPERIENCE

Machine Learning Engineer Serole Technologies Pvt. Ltd.

02/2021 - 06/2021

Remote Work

Responsibilities: Design and test experimental solutions in the space of Machine Learning and Deep Learning.

Projects:

- Electronic Products Classification API for an in-house developed Insurance platform built using PyTorch and deployed using AWS Sagemaker, Lambda and API Gateway.
- Experimental voice bot for a reputed foreign hospital, built using Kore.ai, AWS Connect, Kinesis, Lambda and GCP Speech-to-text, potentially saving 200 man-hours per week for the customer care operators.
- Insurance claim processing chatbot proof-of-concept built using Rasa for a reputed foreign insurance company with an in-house developed vehicular damage classification API and SAP.
- **Key Technology Stack Used:** Python, Tensorflow, PyTorch, AWS, Google Cloud Speech-to-Text.

Software Engineer Serole Technologies Pvt. Ltd.

09/2019 - 01/2021

Hyderabad, India.

Responsibilities: Design, model, and implement chatbots to address customer needs. Coordinate with web, mobile, cloud and UX developers for end-to-end project success. Analyze user behaviour to improve bot engagement.

Projects:

- Child nutrition and queries chatbot for a reputed foreign woman's and children hospital, built using Kore.ai and AWS RDS.
- HR assistant (common FAQs and HR transactions) chatbot for a foreign government department built using Kore.ai, AWS DynamoDB and deployed in Workplace@FB, saving HR department almost 80 man-hours per week.
- Proof-of-concept chatbot for automating employee travel claims built using Rasa, GCP Vision AI and deployed in Heroku.
- **Key Technology Stack Used:** Python, JavaScript, Kore.ai, AWS, Google Cloud Vision AI.

Research Associate - Contract Analytixpro

04/2019 - 08/2020

Hyderabad, India.

Responsibilities: Design and document stimulating projects with machine learning to assist and motivate students.

Projects:

- Self-driving car navigation on unknown landscapes using RCNNs.
- Stock price trend forecasting using RNNs.
- Actionable insights for improving sales using descriptive analytics, regression and time series forecasting.
- Churn retention using ensemble methods.
- **Key Technology Stack Used:** Python, TensorFlow, Scikit-Learn, XGBoost, ARIMA, Tableau.

WORK EXPERIENCE

Product Development Lead

Brainweave

04/2018 - 01/2019

Gurgaon, India.

Responsibilities/Tasks

- Application development, market research and strategic planning for BWHub, a closed e-learning platform targeted towards classes three to five.
- Involved in implementation of a secure authentication system, payment gateway and an experimental chatbot.
- **Key Technology Stack Used:** Java, JavaScript, PHP, DialogFlow.

PERSONAL PROJECTS

AI Plays Blur (10/2021 - Present)

- Designed and built a deep learning model to play a racing game which, along with common actions (go forward and backwards, steer left and right, break), also have additional actions such as collecting and firing various powerups in multiple directions.
- Data acquired by collecting periodic screenshots and recording keystrokes from three players for 30 minutes.

AI Generated Trading Strategies (09/2021 - Present)

- Ongoing master's final project. It involves research, comparison and evaluation of various ML, DL and RL algorithms to evaluate the possibility of using artificial intelligence successfully in the world of algorithmic trading.
- Data acquired via web scrapping and free-to-use online APIs.

Credit Card Fraud Detection (03/2020 - 05/2020)

- Designed and implemented a solution to ingest and process batch and real-time data to detect credit card frauds and provide data to dashboards. Built using Spark-core, Spark-streaming, Kafka, Sqoop, Hive, HBase and Oozie.
- Encrypted data provided to BITS Pilani by a reputed bank in India to be used by students for their projects.

Music Recommendation System (11/2019 - 02/2020)

- Built a recommendation engine that processed more than 80 million customer data points to keep users up to date with their music choices and provides top 100 trending songs. Built using Spark ML, XGBoost Ranking. Spark-streaming, Kafka and AWS RDS.
- Encrypted data provided by a major music streaming service upon request to be used for personal projects.

GitHub - github.com/saatwik-m 

EDUCATION

MSc in Data Science

University of Glasgow

01/2021 - 01/2022

Glasgow, UK.

Courses

- | | |
|--|-------------------------|
| - Machine Learning & Artificial Intelligence | - Deep Learning |
| - Text as Data | - Web Science |
| - Recommender Systems | - Information Retrieval |

PG Diploma in FinTech

BITS Pilani WILP

11/2020 - 10/2021

Correspondence

Courses

- | | |
|------------------------------|---|
| - Financial Management | - Global Financial Markets and Products |
| - Financial Analytics | - Machine Learning for Finance |
| - Digital Banking and Beyond | - Blockchain and Applications |

PG Certification in Big Data Engineering

BITS Pilani

06/2019 - 05/2020

Online

Courses

- | | |
|---|--------------------------|
| - Platforms for Big Data | - ETL & Batch Processing |
| - Real-Time Data Streaming and Processing | - Big Data Analytics |

BTech in Computer Science

Mewar University

2014 - 2018

Rajasthan, India