RAJDEEP SENGUPTA

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Profile

An experienced python developer from financial technology domain (Fin Tech),currently studying at Loughborough university, looking for opportunities in the fields of data/ML engineering.

Education

Degree	**Msc. Advanced Computer Science**	
Period	**October 2022 — October 2023**	
Rank	**Ongoing**	
University	**Loughborough University**	Loughborough, United Kingdom

Degree	**Bachelor of engineering in computers**	
Period	**June 2014 — June 2018**	
Rank	**First Class with distinction (77/100)**	
University	**Pune University**	Pune, India

Degree	**ISC (GCSE including maths and english)**	
Period	**June 2012**	
score	**80/100**	
University	**The Bishop's School**	Pune, India

Skills

Computer vision, Microsoft Azure, AWS, Tableau, Power BI, Databricks, Pyspark, Python, Numpy, Pandas, Tensorflow, Keras, Apache airflow, Jenkins, docker, scikit-learn, shell, C++, git, Apache spark, Vertica, Rabbitmq, Jira, MySQL , MYSQL server, Mongodb, PostgresSQL, Elasticsearch, Kibana, docker-compose, Atlassian Bitbucket, Github

Experience

Employer	**PRM Fincon**
Period	**November 2018 — April 2021**
Job Title	**Python Engineer**

- Designed and implemented a proprietary ensemble of **OCR** and **neural networks** to extract balance sheets, income statements, and cashflows of different types from yearly reports and store them in a standardised format.
- Developed an **ETL pipeline** using flask to collect, preprocess, and publish data for display on a **Kibana** dashboard.
- Consolidated financial data for fundamental analysis through the development of an **ETL pipeline** using **Python** Flask for collecting SEC's data and the **mining of patterns** using an unsupervised **ML-based technique**.
- Utilised the unified analytics platform of **HP Vertica** to generate and **mine patterns** from stock market data, detect patterns of stock market manipulation, and identify **potential loan defaulters**.
- Integration of **Power BI** to customer data in order to provide a real time and interactive dashboard using **flask and Django**.
- Incorporating and using an **EM-based clustering algorithm** to group businesses based on specific, well-defined financial measures in order to identify potential loan default scenarios.
- Developed and deployed a micro service architecture in which we connected an **Azure** gateway and **Power BI** to a Django client and a flask server for inbound and outbound customer data extraction from the database.
- Implemented and deployed an **NLP-based** chatbot using wit.ai to collect information from users looking for part-time jobs. The chatbot's backend is **Python** linked with **elasticsearch** and **MongoDB**.

Academic Projects

Title	**Skin lesion image analysis using Computer vision**	
Period	**Ongoing**	
Degree	**Msc. Advanced Computer Science**	Loughborough, United Kingdom

Voluntary Projects

- **An Analysis of effect of covid on trade and ecomerce:** An ETL pipeline was developed using a variety of Azure cloud technologies, including blob storage for storing raw data, databricks for data transformation, and Azure sql server for storing the processed data, where we examined the detrimental effects of COVID on international trade (imports, exports, and commercial activity).
- **Analysis of Data science salaries in 2023** The creation of an ETL pipeline by leveraging a variety of technologies in the Azure cloud, such as blob storage for storing raw data, Databricks for data transformation, and Azure sql server for data storage.