

# Arpita Bhattacharjee

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[LinkedIn](#) | [GitHub](#)

## EDUCATION

### Multimedia University, Cyberjaya

*Masters in Computing and Information Technology*

*Jun 2022 – Present*

**Major:** Machine Learning and Geospatial Data Analysis

**Thesis:** Retail Site Recommendation: Geospatial Data Analysis and Dynamic Ensemble Modeling Approach for Location Analytics.

### Multimedia University, Cyberjaya

*Bachelor of Computer Science*

*Jul 2018 – Jan 2022*

**Major:** Data Science **CGPA:** 3.24/4.00

**Thesis:** Extremist Content Detection on Social Media: A Hybrid Machine Learning Approach.

## EXPERIENCE

### Research Assistant

*Jul 2022 – Present*

*Multimedia University, Cyberjaya*

- Established a Robust Framework for streamlining and automating **recommendation-based solutions**, resulting in increased efficiency and optimized outcomes.
- Constructed an analytical dataset and leveraged backend **machine learning** algorithms to improve the recommendation system.
- Enhanced ml model performance and recommendation optimization techniques through the implementation of **dynamic ensemble models**.
- Developed a responsive web-hosted dashboard, integrating advanced machine learning algorithms for **optimal functionality** and **user experience**.

### Machine Learning and Natural Language Processing Specialist(Freelancer)

*Nov 2020 – Present*

*Fiverr Portfolio*

- Integrating **Natural Language Processing** techniques with Machine Learning algorithms to derive nuanced understanding and actionable intelligence from diverse social media platform.
- Demonstrated proficiency in cutting-edge research in **Sentiment analysis, Topic Modelling, Abstract Summarization, Semantic Information extraction** in the context of social media data analysis.
- Utilized algorithms to extract patterns and trends within **large datasets**, effectively extracting key insights to inform critical **business decisions** and enhance strategic planning.

### Data Engineer Intern

*Apr 2021 – Jul 2021*

*Airasia Berhad, KL*

- Developed and managed data pipelines for extracting data from diverse sources, including flat files, Salesforce, API endpoints, SQL databases, and GCS buckets.
- Analyzed data, maintained SQL scripts for downstream needs and resolved issues with data pipeline failures and unexpected downstream data.

## SELECTED PROJECTS

### Location Analytics

[Source Code](#) Private repo. Available upon request

- Integrated geospatial, demographic, and footfall data to construct the analytical datasets for enhanced location-based insights. Utilized similarity measures and classification algorithms to facilitate retail site recommendations within specific locations. Created a real-time performance dashboard to showcase the operational efficiency of an automated location analytics framework.

## Sentiment Analysis on Crypto Data and Price Prediction

[Source Code](#)

- Performed sentiment analysis across diverse platforms, extracting valuable insights from the crypto currency market. Leveraged historical sentiment data to forecast price trends and decision-making in purchasing decision of crypto market.

## Sentiment Analysis on Social Media Data

[Source Code](#)

- Investigated social media sentiment for extremism through lexicon-based analysis. Integrated ML models to enhance real-time analysis accuracy and developed hybrid machine learning models to further improve analysis precision, offering insightful classification on social media sentiment and its implications for extremist activities.

## Eczema Severity Detection and Classification

[Source Code](#)

- Experimented diverse image segmentation techniques and feature extraction processes to enhance data analysis capabilities. Led research efforts in the field of eczema severity detection and classification, employing statistical and machine learning approaches to contribute to improved diagnostic methodologies.

## TECHNICAL SKILLS

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<b>Languages</b>	: Python, JavaScript, C++, PySpark, SQL
<b>Frameworks</b>	: Flask, Django, FlutterFlow, Streamlit, Heroku
<b>Libraries</b>	: Tensorflow, PyTorch, OpenCV, Scikit-learn
<b>Databases</b>	: MongoDB, PostgreSQL, MySQL, Hive
<b>Tools</b>	: Tableau, Power bi, Gephi, Visual Studio Code, Github actions
<b>OS</b>	: Windows, Linux

## PUBLICATIONS

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- Optimizing a Retail Recommendation System Utilizing Location Features, Similarity Measures, and Machine Learning Approach (Status: **Accepted**; International Journal on Informatics Visualisation) .
- Business Category Classification via Indistinctive Satellite Image Analysis using Deep Learning (Status: **Accepted**; International Journal on Informatics Visualisation) .
- Published abstract conference proceeding paper “Extremist Content Detection on Social Media: A Hybrid Machine Learning Approach”. [Link](#)
- Detection and classification of eczema on the skin using Image Processing and Machine Learning. (Status: Submitted)

## AWARDS

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- Awarded Khazanah Asia Scholarship to pursue undergraduate Degree in Malaysia with 100% scholarship.
- Achieved **Best Presenter** recognition at the 3rd International Conference on Computer, Information Technology, and Intelligent Computing. [Link](#)

## CERTIFICATIONS

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- Recognized as an **AI expert** certified by Huawei Certified ICT Associate-Artificial Intelligence (HCIA AI). [Link](#)
- Completed Neural Network and Deep Learning online course authorized by DeepLearning.AI and offered through Coursera. [Link](#)
- IELTS score: 7.5 [Link](#)

## ACTIVITIES

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- Awarded for **best presentation** at the 2023 Project Showcase and Competition.
- Demonstrated quick **problem-solving** skills in the 2022 4-hour Hackathon challenge.
- Actively participated in the 2020 Hackerank 40-hour workshops
- Organized various workshops and events as a member of the IT Society and IEEE Committee, showcasing strong **leadership** abilities.