

Sarjhana Ragunathan Brindha

+44 7824061765; sarjhur@gmail.com,

<https://www.linkedin.com/in/sarjhana/>, <https://github.com/Sarjhana>

EDUCATION

King's College London

Sept. 2022

MSc Artificial Intelligence

Pass with Merit (68%)

- Relevant Modules: Data Mining, AI Planning, Computer Vision, AI Reasoning & Decision Making, Nature-Inspired Learning Algorithms, Pattern Recognition, Neural Networks, and Deep Learning.
- Dissertation: Explainable Predictive Frameworks from Medical Time Series supervised by Dr. Zina Ibrahim.
 - Aim: Develop an interpretable classifier using a next-generation Neurosymbolic AI approach, "Logic Explained Networks" that produces first-order logic explanations for time-series data. [Github](#)

Anna University

May 2021

B.Engg. Computer Science & Engineering

CGPA : 8.7/10

- Team Research Project: Early Detection of Alzheimer's Disease
 - Proposed a novel approach of combining Residual Neural Networks(ResNet) and Ensemble Learning (Majority Voting).
 - Led the team to preprocess MRI Brain Images from the ADNI dataset and implement the ResNet classifier using Transfer Learning. [Github](#)

WORK EXPERIENCE

National Health Service (NHS - CAMHS) London, UK

Feb 2023 - Present

Clinical Informatician

- Conducted research and developed extensions for NLP solutions to analyse unstructured health records data.
- Developed several Robotic Process Automation (RPA) bots using industry-leading technologies to automate business processes and enhance operational efficiency.
- Conducted rigorous testing and debugging of RPA bots to ensure accurate functionality, identify and resolve issues, and optimize performance.

Child and Adolescent Mental Health Services (KCL) London, UK

Aug 2022 - Feb 2023

Senior Analyst (Part-time)

- Performed data extraction, manipulation, and analysis using Microsoft SQL Server for ADHD research projects.
- Created impactful reports, dashboards, and data visualizations using Power BI to analyse mental health data.

Predactica LLC Remote

Aug 2021 - Oct 2022

AI/ML R&D consultant (Part-time)

- Worked on researching and developing Explainable AI capabilities to generate global and local explanations using the SHAP and LIME libraries.
- Tested counterfactual understanding of churn data and performed clustering for customer segmentation to help Fortune 500 companies diagnose and reduce customer churn rate resulting in a 20% increase in revenue.
- Authored optimal codes to effectively formulate Model Stability using Population Stability Index (PSI) and Characteristic Stability Index (CSI).
- Acted as a single point of communication between the intern team and management team to engineer the new features and integrate them into the existing product.
- Built LSTM, CNN, NN, and BERT models to test various explainability libraries like SHAP, LIME, and ex-BERT using TensorFlow and Huggingface.

- Collaborated with the developer team to work on the demands specified by the client and created a prototype for a mobile application using React-Native that underwent various mockups.

TECHNICAL SKILLS & CERTIFICATIONS

Technologies:	Artificial Intelligence, Machine Learning, Deep Learning, NLP, Computer Vision
Programming:	Python, C, C++, Dart, Matlab, R
Databases:	MySQL, FireBase
Libraries:	Tensorflow, Pytorch, Keras, Scikit Learn, NLTK, Numpy, Pandas, SHAP, LIME, DICE
Certifications:	Artificial Intelligence(Harvard University), Machine Learning(Stanford University), Deep Learning Specialization (CNN, LSTM from Coursera), Introduction to Programming using Python(Microsoft, Credential ID - wLps5-H9MW)

PROJECTS

People Detection, Tracking and Counting June 2021

- Developed an object detector, tracker, and counter in TensorFlow using state-of-the-art techniques - YOLOv4 and DeepSORT. [GitHub](#)

AI in Marketing Jan. 2021

- Trained a K-Means Clustering Model on customer dataset to identify similar groups which can be used for targeted ads or customised marketing campaigns.
- Performed Exploratory Data Analysis and PCA dimensionality reduction. [GitHub](#)

Credit Card Default Detection May 2020

- Trained an XGBoost model with hyperparameter tuning by a Grid search to predict if a customer would default on credit card payments. [GitHub](#)

ACHIEVEMENTS

Winner, Smart India Hackathon Aug. 2020

- Developed 'MIDDAY MEALS', an automated auditing system to monitor the free lunch scheme employed in over 1 million schools across India, for a 36-hour hackathon conducted by The Government of India.
- Achieved 95% accuracy for Custom Food Detection model trained in SSD EfficientDet. [Github](#)

Winner, Think-a-thon Feb. 2019

- Created prototype of Optical Character Recognition (OCR) system for automating and validating bank cheques using Tesseract and Android Studio for a 24-hour hackathon conducted by Anna University, India. [Github](#)

Best Innovation Award, SAACHACK July 2018

- Designed and implemented the project 'ParkSmart', an automated cloud-based parking system using Android Studio for a 24-hour hackathon conducted by Anna University, India. [Github](#)

LEADERSHIP RESPONSIBILITIES & VOLUNTEERING EXPERIENCE

Python Instructor, Hatch School of Code May 2020 - Aug 2020

- Taught foundational basics to advanced-level hands-on Python coding for kids of age 5 to 15.

President, Association of Computer Engineers, Anna University July 2018 - May 2021

- Played a crucial role in organising various technical events, hackathons, and the National level Symposium "Interrupt" for three consecutive years as a president, secretary, and an executive member.
- Accomplished a 40% increase in student participation by enforcing new marketing strategies.