ROHIT SUBRAMANIAN ARIVALAGAN

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EDUCATION

New Jersey Institute of Technology *Sept 2021 - Present*
MS in Data Science - Computational Track (4.0 CGPA)

Vellore Institute of Technology *July 2017 - June 2021*
B.Tech in Computer Science and Engineering (8.46 CGPA)

SKILLS

Languages:	Python, R, C, C++, Spark, SQL, Java
Tools & Frameworks:	TensorFlow, Keras, Pandas, Scikit-learn, NLP, NoSQL, NLTK, OpenCV, Git, RStudio, PowerBI, HTML, CSS, JS, AJAX, PHP
Industry Knowledge:	Statistics, Machine Learning, Deep Learning, Data Analytics, Big Data, Data Mining, Database Systems Artificial Intelligence, Data Structures , Business Intelligence, Image Processing, Cloud Computing Robotics, Computer Vision, IoT

WORK EXPERIENCE

Data Structures and Algorithms TA/Grader - New Jersey Institute of Technology *Jan 2022 - Present*

Data Analytics with R Programming TA/Grader - New Jersey Institute of Technology *Jan 2022 - Present*

Data Science Intern - Avasoft, Chennai *May 2019 - July 2019*

Dashboard Modelling (Bug Report Analysis) - Business Intelligence

- Developed a dashboard (using PowerBI) that produces a clear, intuitive and insightful representation of the bug data present in their private TFS server using a waterfall SDLC model with the Quality Assurance team at Avasoft as the stakeholders .
- ETL (Extract Transfer Load) was done on the company's past bug data and then modelled into PowerBI for visualization
- After performing all the DAX(Data Analysis Expressions) transformations and functions, adequate charts were selected and then used to model the dashboard.

Machine Learning, Data Analysis Tasks

- Prediction of Median Price of a House per locality in Boston using the Average number of Rooms per household in the dwelling.
- Exploratory Bug Analysis and Visualization of Sales Dataset

PROJECTS

- AI Assisted Wildlife Detection and Alerting System: Uses a decentralized system that works with real-time detection and reduces the burden on the server by integrating TensorFlow environment for Raspberry Pi and able to run the MobileNet architecture for elephant detection that facilitates computationally intensive Deep Learning algorithm on low end computers.

- NLP based Amazon Product Review Analysis using Deep Learning: Various Natural Language Processing along with Deep Learning techniques are used to identify suspicious reviews, summarize the reviews and predict the rating of the product based on a sentiment classification of the reviews A simple SVM model, an Encoder-Decoder architecture with a 3-stacked LSTM for the encoder model and a Bidirectional RNN with LSTM – GRU are implemented.

- AI-Powered Autonomous Lane Navigation System: The system uses Deep Learning to replace the traditional multi-algorithm Image Processing workflow needed to help the car navigate along a road (Lane Detection and Steering Angle Prediction) and develop a prototype of an Algorithm that can be used in Self-Driving cars.

- Segregation of Quora Insincere Questions using LSTM and Glove Embedding: The project is based on a problem faced by quora and many other sites similar in trying to find out insincere questions among all the other genuine questions in the site. LSTM classification and GloVe word embeddings are used to do this.

- Image Super Resolution and Inpainting: Uses a Mask - RCNN to implement Instance Segmentation to obtain the masks of the object and separate it from the background and then apply a Super Resolution Model (using U-Net Model) to increase quality.

- Indian Currency Recognition using Image Processing and Parallel Computing: Proposes a parralelized approach for recognition of Indian currency banknotes by matching an input test currency note to a trained image and identify the similarity.

CERTIFICATIONS AND ACHIEVEMENTS

Data Science Specialization - IBM
Machine Learning - Stanford University
Fundamentals of Digital Image and Video Processing - Northwestern University
Mathematics for Machine Learning - Imperial College of London

2 time Grand Finalist at **SMART INDIA HACKATHON** (Indore 2019, Pune 2020) held by MHRD, Govt. of India
Not-A-Thon 2019 Winner (VIT Chennai) & **VIVID 2020** Finalist (SSN Chennai)