Ram Alagappan

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Education

Arizona State University | Tempe, arizona Aug 2024 - May 2026
MS in Computer Engineering (Computer Systems)

SRM Institute of Science and Technology | Ramapuram, India Aug 2020 - May 2024
Bachelor of Technology in Computer Science and Engineering with AI and ML
GPA: 9.01/10

Skills

Languages & libraries: Python, C++, C, HTML, CSS, Numpy, Pandas, Matplotlib, Scikitlearn, tensorflow, Pytorch

Tools & platforms: Machine Learning, Pycharm, XCode, Visual Studio Code, Microsoft Word, Powerpoint, Excel

Internships

Data Science Intern, Code Clause August 2023

- Executed feature engineering to transform raw data into useful information and developed machine learning models such as decision trees & random forests, while optimizing predictive accuracy of model by ***80%.***
- Implemented automated data pipelines to enhance processing efficiency by ***25%.*** and to ensure scalable data handling.

Machine Learning Engineer, Cognizant July 2023

- Gained hands-on experience in data analysis, modeling, and model building by deploying 4 main techniques such as ***regression analysis, Monte Carlo simulation, entity-relationship modeling, and data mining*** respectively.
- Processed large datasets by collecting and cleaning. Created predictive models, evaluated models's performance and forecasted its future with atleast ***20%*** better accuracy for being one step ahead in decision making.

Data Scientist, Oasis Infobyte March 2023

- Conducted data analysis and visualization, building machine learning models for predictive analytics deploying ***Python and R*** and evaluated algorithms to improve accuracy of model. Enhanced skills in data cleaning, statistical analysis, and model evaluation by having a hands-on experience on these topics by performing on 3 datasets from kaggle.

Publications

Emergency Alert and Adaptive Traffic Signal System Using Machine Learning May 2024
Gowthamy J, SenthilSelvi A, ***Ram A***, Rohit R, Niranjan S
10.1007/978-981-97-1329-5_7

Knowledge Driven Semantic Segmentation on Instance Adaptive Learning Accepted for publication in IEEE Explore, expected 2025
Rohit R, ***Ram A***, Siddarth Lakshmanan

Projects

Market Basket Analysis in Python using Apriori Algorithm Market Basket Analysis

- Collected a dataset of around 500 customers for market basket analysis to identify relationships between products frequently purchased together by examining patterns and frequency in customer's purchase data.
- Analyzed by a team of 6 people, a data set of customer's purchase history to understand product grouping and predict products likely to be purchased together by leveraging ***Apriori algorithm*** in Python.

Churn Prediction in Telecom Industry using Logistic Regression Churn Prediciton

- Reduced customer's churn rate by upto 50% by identifying customers likely to leave company's services by using ***logistic regression*** model that leverages early exploration to be further interpreted find the churn likelihood.
- Performed by a group of 4 people on a dataset from kaggle including 100's of transaction histories and customer service.

Smart Selection for Optimal D2D Communication Backup Device and Anomaly Detection October 2023
(Team Members: 3)

- Proposed a framework for selecting backup D2D communication UE's based on criteria of signal strength, battery life, proximity, and historical reliability using ***logistic regression and F-1 score***, When primary UE RELAY is not in range.