RAMANATHAN MURUGAPPAN

Experienced Data Scientist proficient in Data Engineering, Machine Learning, Statistical Modeling, Data Mining, and Visualization with 5+ years of expertise.

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PROFESSIONAL EXPERIENCE

Data Science Analyst

Accenture AI-Hub | Global Consulting and Technology Company driving innovation in Data science, offering Advanced Analytics Solutions

Aug 2021 – Present   Bangalore

- **Fee-Optimizing Model** - Developed a fee-optimizing model using Segmentation and Profiling techniques on payments and collections data. Utilized feature engineering to create a diverse range of features, including statistical, historical, and business-related aspects. Collaborated with the on-site strategy team to validate hypotheses and convert them into actionable recommendations. Automated web scraping for data collection and conducted detailed analysis to support the fee-optimizing strategy for Plasma Donation.

- **Structured Data Extraction Package** - Developed a cost and time-saving package that replaces the OCR method by converting unstructured data in docx files, particularly Form documents, into key-value pairs. This innovative solution transformed unstructured data into structured data, eliminating the need for OCR and enabled efficient analysis and utilization of the information.

- **Centralized Marketing Database** - Created a centralized database for efficient campaign email programs by consolidating data from multiple marketing teams. This platform eliminates duplication and enables the collection, storage, and analysis of large datasets from various sources. The centralized database, serves as a central repository for targeted audience data, enhancing the effectiveness of email campaigns for one of the MAANG Companies' Products.
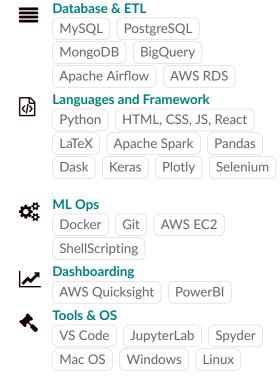
Data Science Analyst

Kaleidofin | Series B FinTech Startup serving the Underbanked Space, backed by BHARAT Inclusion, Omidyar Network & BLUME Ventures

Dec 2019 – Aug 2021   Chennai

- **Credit Risk Model** - Developed a comprehensive Risk model using machine learning techniques such as Bagging and Boosting, like Random Forest and XGBoost. This model leverages transaction data, demographics data, and credit bureau data from multiple MFI partners to assess risk. Additionally, the model is capable of scoring new-to-credit and new-to-MFI customers. Conducted regular monthly Risk analysis, including geographical analysis and model performance evaluation, leading to optimizations in the production code base.

- **Payment Prediction Model** - Developed an end-to-end prediction model utilizing machine learning techniques such as XGBoost, LightGBM, and GridSearchCV for hyperparameter tuning. This model accurately predicts customer payments, leading to improved efficiency and optimization of Kaleidofin's in-house call center operations.

- **Dashboards & Database Automation** - Created customized dashboards for multiple partners and internal teams, addressing their unique business needs. Simultaneously, implemented automation solutions to optimize workflows using Apache Airflow and minimize manual tasks. Furthermore, developed data pipelines to seamlessly integrate disparate data sources, enriching the dashboards with greater detail and granularity.

SKILL-SETS

Database & ETL

MySQL   PostgreSQL   MongoDB   BigQuery   Apache Airflow   AWS RDS

Languages and Framework

Python   HTML, CSS, JS, React   LaTeX   Apache Spark   Pandas   Dask   Keras   Plotly   Selenium

ML Ops

Docker   Git   AWS EC2   ShellScripting

Dashboarding

AWS Quicksight   PowerBI

Tools & OS

VS Code   JupyterLab   Spyder   Mac OS   Windows   Linux

PUBLICATIONS

SOLARILLION FOUNDATION (SF)

Research Assistant + Teaching Assistant

Aug 2018-May 2020   Chennai

- **A Two-Stage Machine Learning Approach to Forecast the Lifetime of Movies in a Multiplex** - Published at Future of Information and Communication Conference (FICC) 2020, San Francisco, USA. [LINK]

- **User-Independent Human Stress Detection** - Published at IEEE Intelligent Systems IS'20 - Varna, Bulgaria, August 2020. [LINK]

EDUCATION

M.E Mechatronics

Anna University (M.I.T Campus)

2018-2020   Chennai

CERTIFICATION

- **Red Hat Certified Specialist in OpenShift Administration**[LINK]