# RAMANATHAN MURUGAPPAN

Data Scientist | Fin & Pharma Tech

5+ years of Experienced Data Scientist proficient in Gen-AI & ML Modeling, excelling in engineering innovative solutions that align with business goals and enhance operational efficiency.

## 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

- Flipkart Lens Engineered a sophisticated visual search tool to address poor user experience in visual product searches, leveraging SAM for effective background removal and Clip-ViT-B for robust image embeddings. Integrated a Qdrant vector database to enhance search functionality, resulting in a significant improvement in user experience.
- GENAI Asthma Prediction Tool Developed a GENAI asthma prediction tool
  for a global healthcare company, integrating RAG and LLM chat functionality
  with Excel/CSV. Led front-end & Back-end development using Streamlit and
  contributed to two project phases, coordinating efforts with the team and
  conducted client demos.
- Fee-Optimizing Model Engineered a Plasma Donation fee-optimizing model, applying Segmentation and Profiling to payments, transaction and customer data, with a focus on feature engineering. Collaborated with the strategy team to convert hypotheses into actionable insights and utilized automated web scraping for data collection, enhancing the strategy's effectiveness.

### **Data Science Analyst**

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

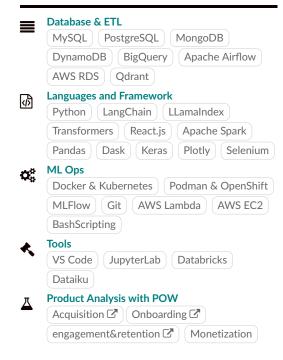
**♀** Chennai

- Credit Risk Model Developed a Credit Risk model using Bagging and Boosting for risk assessment, analyzing transaction, demographic, and credit data from MFI partners. This model efficiently scores new-to-credit and MFI customers and includes monthly risk analyses for continuous improvements in code base performance.
- Payment Prediction Model Developed an end-to-end prediction model
  utilizing machine learning techniques such as RandomForest, 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 Designed and deployed customized dashboards for partners and teams, catering to unique business needs, alongside automating workflows with Apache Airflow. Also built data pipelines to integrate various data sources, thus enriching dashboards with in-depth, granular data.

## **ACHIEVEMENTS & OTHER PROJECTS**

- Resume Chatbot Built a web-based chatbot to simulate resume-related interview questions using Gemini(LLM). Deployed with Flask and React.js, ensuring consistency with Docker. Implemented on Render to enhance user interaction with resumes.
- Flight Delay Prediction Two stage predictive ML Engine that forecasts
  On-time performance of flights using Weather Data in the US. The first stage
  performs binary classification to predict flight delays, and the second stage
  uses regression to predict the delay duration in minutes.

#### SKILL-SETS



#### **PUBLICATIONS**

#### SOLARILLION FOUNDATION (SF)

Research Assistant + Teaching Assistant

- 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.
- User-Independent Human Stress Detection 

   Published at IEEE Intelligent Systems IS'20 Varna, Bulgaria, August 2020.

## **EDUCATION**

M.E Mechatronics

Anna University (M.I.T Campus)

**2018-2020** 

**◊** Chennai

## **CERTIFICATION**

- Red Hat Certified Specialist in OpenShift Administration
- Generative AI for Developers by Google
- Advanced Analytics for Data Scientists by Workera ☑
- Responsible AI by Workera