MAHAALAKSHMI B

Data Scientist

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GitHub: github.com/Mahaa-Lakshmi **| Portfolio:** https://mahaa-lakshmi.github.io/personal_Portfolio/
Location: Chennai, India **| Experience:** 1.75 Years

EXECUTIVE SUMMARY

Data Scientist with a strong foundation in machine learning, deep learning, and data engineering. Backed by certifications from IIT-M Pravartak and IBM, with hands-on experience in building ML pipelines, deploying AI products, and applying MLOps best practices. Former software engineer at Accenture with expertise in automating enterprise workflows and maintaining production systems. Passionate about turning complex data into actionable intelligence to solve real-world business problems.

EXPERIENCE

Accenture, Chennai   *Oct 2022 - Jun 2024*
Associate - Custom Software Engineering

- Developed document automation solutions using Oracle Documaker Studio 12.5, significantly reducing manual effort and accelerating delivery.
- Collaborated with middleware teams to resolve performance-impacting issues, ensuring application stability.
- Managed weekly/monthly production deployments ensuring zero-downtime releases.
- Documented deployment workflows supporting CI/CD best practices for robust knowledge sharing.

PROJECTS

1. **RAGcruiter - AI-Powered Resume Screener**
   LangChain | Gemini API | ChromaDB | FAISS | Streamlit | HuggingFace
   - Built a Retrieval-Augmented Generation (RAG) system to automate resume screening for recruiters and shortlisting.
   - Enabled recruiters to semantically query and evaluate resumes through real-time Q&A using LLMs and vector search.
   - [GitHub] [App]

2. **Mental Health Prediction using Deep Learning**
   PyTorch | SMOTE | Mutual Information | Focal Loss | Streamlit
   - Designed a neural network to detect depression risk from mental health surveys.
   - Handled class imbalance using SMOTE and a custom Focal Loss function.
   - Achieved 91%+ F1-score on validation data.
   - [GitHub] [App]

3. **Customer Conversion Analysis**

EDA | XGBoost | Random Forest | Feature Engineering | Classification | Regression| Clustering
- Analyzed e-commerce behavior to identify conversion patterns using classification models , Regression and Clustering algorithms.
- Enhanced model performance using SMOTE and ensemble methods.
- [GitHub]

4. **SmartPremium - Health Insurance Price Prediction**

Scikit-learn | Bayesian Optimization | MLflow | Streamlit
- Trained ML models to forecast insurance premiums using optimized pipelines.
- Used Bayesian Optimization for hyperparameter tuning to minimize RMSE.
- Integrated MLflow for model versioning and experiment tracking.
- Deployed an interactive streamlit web app for single and bulk premium predictions.
- [GitHub] [App]

5. **Cricket Data Insights**

Pandas | Seaborn | Matplotlib | Python | Dashboard | Streamlit | PowerBI
- Explored IPL match datasets to uncover insights on player, team performance and win strategies.
- Delivered dashboards enabling match strategy optimization using streamlit and PowerBI.
- [GitHub]

6. **Zomato Insights - Customer Preference Analysis**

SQL | Python | Data Visualization
- Conducted EDA on restaurant data to discover customer trends and pricing strategies.
- Delivered insights via visual storytelling using Seaborn and Matplotlib.
- [GitHub]

SKILLS

Programming Languages:	Python, Java, SQL, JavaScript, HTML/CSS, Linux (Bash Scripting, Cron Jobs)
ML/DL:	Scikit-learn, TensorFlow, PyTorch, Ensemble Techniques
NLP & GenAI:	Transformers, HuggingFace, LLMs, RAG, Prompt Engineering
MLOps & Cloud Tools:	MLflow, LangChain, Git, Streamlit, Azure (AZ-900), AWS
Libraries & Analytics:	Pandas, NumPy, Matplotlib, Seaborn
Dev & Platforms:	PowerBI, Git, Jupyter, VS Code, Oracle Documaker
Soft Skills:	Team Collaboration, Problem Solving, Time Management, Adaptability

CERTIFICATIONS

1. GUVI Master Data Science Program - Certified by IIT-M Pravartak
2. IBM AI Developer Professional Certificate - Coursera
3. Microsoft Certified: Azure Fundamentals (AZ-900)

EDUCATION

Bachelor of Technology in Information Technology   **2018 - 2022**
KCG College of Technology, Chennai   CGPA: 8.7

EXTRACURRICULAR ACTIVITIES

- **National-Level Basketball Player**
  Represented Tamil Nadu in U13 and U16 categories. Honed teamwork, discipline, and strategic thinking under pressure.
- **Tech Event Coordinator - KCG College of Technology**
  Successfully organized and managed a college symposium in July 2019, coordinating logistics, participants, and faculty.
- **Python & Web Development Trainer**
  Conducted hands-on sessions for junior students on Python programming and web technologies (Aug 2020 - Jan 2021).
- **Creative Contributor - IET Smart City Challenge**
  Designed digital certificates and logos; supported visual branding and event experience.
- **Team Captain - School & College Basketball Teams**
  Led teams to multiple wins; awarded "Best House in Sports - Women" under leadership.
- **Team Engagement Lead - Accenture**
  Planned and hosted fun events and ice-breaker activities to boost team morale and bonding across project teams (2023 & 2024).