Chamodh Chiranthana
Intern AI/ML Engineer

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Aspiring AI/ML Engineer with practical experience in data preprocessing, model development, and predictive analytics. Strong foundation in Python, machine learning, and data-driven problem solving, with a keen interest in automation and cloud technologies. Passionate about building scalable, interpretable, and ethical AI systems that deliver real-world impact.

SKILLS

Programming & Tools	Python, Java, SQL, Git, scikit-learn, pandas, NumPy, Power-BI, LangChain, HuggingFace, OpenAI
Machine Learning & AI	Supervised & Unsupervised Learning, Model Training & Evaluation, Feature Engineering, Predictive Modeling, Hyperparameter Tuning
Data Engineering	ETL Pipelines, Data Preprocessing, Automation, Data Wrangling, REST APIs
Data Analysis	Exploratory Data Analysis (EDA), Statistical Analysis, Visualization Dashboards
Soft Skills	Problem Solving, Team Collaboration, Clear Technical Communication, Documentation

TECHNICAL EXPERIENCE

Data Science Intern — **Jun 2025 – Present**
Management Systems (Pvt) Ltd. — Payroll Management Division — *Colombo, Sri Lanka*

- Building an automated reporting system for company-wide provident fund (PPF) performance, generating fund reports from payroll and fund transaction databases.
- Analyzing Oracle/SQL PPF datasets to define report-ready KPIs (contributions, withdrawals, returns, loan exposure, coverage ratios) and creating reusable queries/views to compute them consistently.
- Developing a FastAPI backend to orchestrate data extraction, metric aggregation, AI-assisted narrative generation, and LaTeX compilation into PDF reports that explain fund health and trends.
- Adding forecasting components to the reporting pipeline to project upcoming KPIs (e.g., contributions/withdrawals/OT-related indicators) and include forward-looking insights alongside historical performance.
- Working with finance, HR, and IT stakeholders to validate KPI logic, report layout, and explanations, replacing manual reporting with a reproducible, data-driven workflow.

World History Search Pipeline – Semantic RAG System — **2024 – Present**
Personal Project

- Designed an end-to-end semantic search pipeline that transforms world history textbooks into a vectorised knowledge base for question answering and AI-powered tutoring.
- Implemented modular PDF extraction, text cleaning, and semantic chunking workflows in Python using `pymupdf`, `nltk`, and `sentence-transformers` (`all-MiniLM-L6-v2`).
- Built a `ChromaDB`-backed vector store with chapter/page metadata to enable fast similarity search and grounded retrieval with citations.
- Prototyped retrieval-augmented generation (RAG) flows with the `Gemini` API, exposing the system through notebooks and a backend/frontend scaffold for future web deployment.

Employee Churn Prediction – HR Analytics — **Aug 2025**
Personal Project

- Built and compared multiple ML models (`Logistic Regression`, `Random Forest`, `XGBoost`) to predict employee churn, achieving strong ROC-AUC performance with XGBoost.
- Engineered features from 15K+ employee records—spanning tenure, performance, and compensation—to quantify attrition risk.
- Interpreted model outputs via feature importance analysis, identifying primary churn drivers and HR intervention points.
- Delivered actionable retention insights through concise reporting and data visualizations.

EDUCATION

University of Westminster, London, UK — Expected 2027
Bachelor of Computer Science, Major in Computer Science; Minor in Mathematics
Relevant Coursework: Machine Learning & Data Mining, Database Systems, Object-Oriented Programming

Informatics Institute of Technology, Colombo, Sri Lanka — 2021 – 2022
Foundation Certificate of Higher Education: Mathematics for Computer Science, Python Programming, Computer Systems

CERTIFICATIONS

IBM Data Science Professional Certificate	Coursera — IBM Skills Network	2025
Google Advanced Data Analytics Certificate	Coursera — Google Career Certificates	2025

ACTIVITIES

- Author, Data Science Blogs on Medium — 2025 – Present — 2025 – Present
- Participant, Kaggle Competitions Online Coding Sprints — 2024 – Present