Jeswin Arul Samuel

AI Engineer ▪ Data Specialist ▪ Software Developer ▪ Vibe Coder

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An agile certified Data Specialist with hand-on experience in data analytics, data engineering and Data Science. I have built many models in the domain of machine learning, Deep learning and NLP and also proficient in latest AI trends, with project building experience in RAG and LLM based full stack application using python backend and React frontend. With strong background in the concepts of ML and AI along with app development workflow, I can adapt to any technologies and build application in these domains with the help of AI tools.
I have a 6-month post-study internship experience at Amazon, Luxembourg as a Business Intelligence Engineer working with their customs broker data reports and audits.
For the past 18 months I am a AI/ML freelance engineer working on various projects, now looking for a full-time career as a AI/ML software engineer, to get back into the industry.

SKILLS

Programming & Tools
- Python
- SQL
- Bash
- JavaScript
- VS code
- Micro python
- MS Excel / Power BI / Tableau
- IPython Notebooks
- Git & GitHub

Deep Learning
- TensorFlow
- PyTorch
- Keras
- Huggin Face
- OpenCV
- ANN, CNN, RNN, LSTM, GRU
- Image processing
- Sound processing
- Transfer Learning
- Generative Adversial Networks

NLP / GEN AI / LLM's
- Tokenization / Stemming & Lemmatization
- Vector Embedding
- Prompt Engineering
- OpenAI
- LangChain
- Hugging Face
- Groq
- Ollama
- Crew AI
- FAISS, Chroma, Astra DB, Pinecone
- LangGraph
- Neo4j
- LoRA, QLoRA
- RAGAS

Data Science / ML
- Linear / Logistic / Bayesian Algorithms
- KNN / Naïve Bayes / Decision Tree
- Random Forest / Bagging / Boosting / Stacking
- SLP / MLP / Neural Networks
- SVM / Hog SVM
- Kmeans Clustering / Hierarchical / DB Scan
- PCA
- Collaborative filtering / Content based filtering
- SciKit Learn / SciPy / XGBoost / LightGBM

Data Analysis & BI
- Statistics
- Hypothesis Testing
- A/B Testing
- Pattern Mining
- Time series Forecasting
- Predictive Analysis
- CHURN Analysis
- Data Quality and Validation
- RFM Analysis

Software Development
- Django
- Fast API / Flask
- Streamlit
- Gradio
- React JS
- NodeJS

Soft Skills
- Project management
- Client Relations
- Stakeholder management
- Cross-functional team communication
- Research
- Requirement analysis
- Continuous Development

PROJECTS

Deep Learning Projects: [Click here for DL projects codes](#)
1. Airplane classification using satellite Images
2. Image Classification using Transfer Learning (Inception ResNet V2)
3. Convolution Neural Network model to classify cifar-10 dataset
4. Sound classification using Librosa and ANN model
5. Next word Prediction application using NLP and RNN + LSTM Model : Project Demo
6. Movie Review Sentiment Analysis using NLP and ANN model : Project Demo

Reinforced learning project: [Click here for RL projects codes](#)
1. Developed and trained a Deep Q-Network (DQN) agent using PyTorch to solve the LunarLander-v3 environment with experience replay and target network updates
2. Developed a Deep Convolution Q-Network (DCQN) agent with convolutional architecture and experience replay to master Atari's Ms. Pac-Man using PyTorch and Gymnasium.
3. Implemented an Advantage Actor-Critic (A2C) agent with CNN + LSTM model to play Atari's Kung Fu Master using Gymnasium and PyTorch.

Gen AI projects:
1. Q&A Chatbot using LLM:
    1. Using LangChain and OpenAI – [View Code](#)   [Demo](#)
    2. Using LangChain and Ollama – [View Code](#)   [Demo](#)
2. PDF RAG Chatbot using Groq – [View Code](#)   [Demo](#)
3. SQL Chatbot to interact with databases using SQL Database Toolkit – [View Code](#)   [Demo](#)
4. MathGPT: A custom GPT using custom LLMMathChain – [View Code](#)   [Demo](#)
5. AI Search Engine: A chat search engine using Wikipedia, arxiv and serper google search tool employing a Zero-shot React agent – [View Code](#)   [Demo](#)
6. YT to Blog Convertor using AI Agents built with Crew AI – [View Code](#)

WORK (DATA) EXPERIENCE

AI Engineer & Data Science Trainer – Freelance   Global Remit
Freelancer   May 2024 – Present

- Trained 500+ working professionals and graduates in Data Science, Analytics and AI
- Worked in 4 Realtime AI projects for companies as a freelancer
- Upskilled in GEN AI, LLM and Agentic AI

Business Intelligence Engineer   Luxembourg
Amazon   Jul 2023 – Dec 2023

- Developed data schema to streamline onboarding of customs broker partners (UPS, CEVA, Kerry, AnPost, SwissPost, ..) ensuring high data integrity and efficient data flow in Amazon's Customs Central program.
- Engineered data validation rules, increasing data readiness from 38% to 86%..
- Designed and implemented an automated audit dashboard, enhancing audit capacity by 70% and improving compliance checks.

Senior Data Science Trainer and Digital Transformation Exec   Chennai
Lema Labs Technologies Pvt Ltd   Apr 2018 – Sep 2021

- Upskilled in Machine Learning, Data Science and Data Analytics in a time of 3 months using Andrew-Ng's course on Coursera and other online resources.
- Spearheaded the development a 13-week job ready Data Science curriculum (fully hands-on) to upskill working professionals and university students.
- Built and trained 20+ machine learning and deep learning models.
- Trained over 1000+ working professionals and university students in Machine Learning and AI

CERTIFICATIONS and COURSES

- Complete Generative AI with LangChain and HuggingFace – Krish Naik (Udemy)
- LLM's : Developer's Masterclass (Udemy)
- Machine Learning – Andrew NG (Coursera)
- Machine Learning for Business (Datacamp)
- Python Data Science Toolbox (Datacamp)
- Statistics for Data Science & BA (Udemy)
- Data Analyst with Power BI (Datacamp)
- EDA in python (Datacamp)
- Analysing data in Tableau (Datacamp)
- Agile PM Foundations – APMG International
- Leadership Development Program – Compassion International

EDUCATION

MSc Artificial Intelligence for Business Transformation   Paris, France
SKEMA Business School   Sep 2022 – Dec 2023

Post Graduate Diploma in International Management   Paris, France
SKEMA Business School   Sep 2022 – Dec 2023

BE Electronics and Communication Engineering   Chennai, India
KCG College of Technology   Aug 2010 – Jun 2014