Avirup Ghosh

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WORK EXPERIENCE

Lalamove   **Kowloon Tong, Hong Kong**

Data Science Team Lead   May 2022 - Present
Senior Machine Learning Engineer (acting Team Lead)   February 2022 - May 2022
Machine Learning Engineer   August 2021 - February 2022

- Leading the data science team in the order-allocation project. Leveraging machine learning and data science skills to create real-time features, train models for different countries, executing A/B tests, analysing the results, and making meaningful business decisions
- Working with the Anti-Fraud team to create risk-assessment model to reduce the payment risk and funnelling more of safe-transactions that could have been blocked using rule-based model
- Using Gen-AI to summarise user and driver feedbacks across all the markets for the whole year
- Using GPT to create IT-Chatbot to offload IT people's work
- Leveraging OCR in driver's onboarding auto-approval project
- Facial recognition of drivers to avoid fraudulent drivers' behaviour
- Using ML techniques to analysing the marketshare of Lalamove among the other competitors
- OCR extractions from business registration doc and validating that to on-board corporates on our platform

Hewlett Packard Enterprise   **Cyberport, Hong Kong**

Engineering Program Manager I (Innovation Lab)   Sept 2020 – August 2021

- Managed a team of three, and developed ML flow to build, train and deploy models either on-premises, in the cloud or in a hybrid environment using HPE Ezmeral, an in-house tool for data science and analytics workloads

Infosys Limited   **Mysuru, India**

System Engineer   Dec 2015 – Jul 2017

- Delivered an aircraft fault detection project to increase time efficiency by 8% for the client Mitsubishi Aircraft

EDUCATION

City University of Hong Kong   **2017-2020, Hong Kong**

Ph.D. in Electrical Engineering (HK Postgraduate Studentship Award recipient)

- Researched on computational biology and apply machine learning algorithms to visualise the effect of different mutations and certain drug resistance to achieve overall stability for the lung cancer patient.
- Facilitated as Teaching Assistant, Reflective Teacher Award 2018 and Best Student Paper Award 2019

Vellore Institute of Technology, M.Tech - Mechatronics Engineering, 8.04/10   **2013-2015, India**
West Bengal University of Technology, B.Tech - Electronics & Comm. Engg.,8.47/10   **2009-2013, India**

ADDITIONAL PROJECTS

Python & Machine Learning projects on Financial Analysis

- NLP based sentiment analysis to use it as a directional signal to buy/sell an asset class [NLTK, TextBlob, spaCy]
- NLP based document summarisation to provide timely update on key matters [LDA Topic model]
- Creating a trading agent for reinforcement-learning based strategy for actions like buy/sell/hold

- Reinforcement-based trading strategy v/s the traditional Black-Scholes model in terms of effectiveness
- Clustering the highly correlated asset pairs
- Using supervised classification
- Discover fraud propensity for customers/transaction providing key alerts
- Simple loan default probability calculation
- Develop ML based framework for derivative pricing

LLM based projects

- Running different hugging-face models locally for document info retrieval, and comparing its performance
- Comparing Llama-1,2,3 v/s Mixtral, Anthropic Claude, OpenAI's GPT-4 and GPT-4o
- Build multi-threaded apps using Streamlit with GPT API
- Simple Opus auto-coder

ADDITIONAL INFORMATION

- **Technical Skills:** Python, AWS services, MySQL
- **AI skills:** LangChain, LlamaIndex, GPT models, LLMs, LLM fine-tuning, RAG, Multi-modality, AI Agent, RAG
- **Interests:** Cryptocurrency, equity and options trading, reddit, weight training, cooking, playing squash