Pavanpreet Singh Gandhi

LinkedIn, GitHub

Email : pavanpreet.gandhi@gmail.com
Mobile : +44 (0)7927 658364

SKILLS

- **Programming Languages**: Python, R, SQL, Bash
- **Programming Frameworks**: PyTorch, JAX, HuggingFace, NumPy, Pandas, Matplotlib, etc.
- **Technologies**: Deep Learning, Large Language Models, Reinforcement Learning, Time Series Analysis, Anomaly Detection, Gaussian Processes, Bayesian Inference
- **Tools**: Git, Docker, Linux, Jupyter Notebooks, Streamlit

EXPERIENCE

- **American Express**   Brighton, UK
  Graduate Data Scientist   *Sep 2023 – Aug 2024*
  - **Anomaly Detection**: Applied **unsupervised learning** techniques and **robust statistics** to detect anomalies in call-volume data. Deployed the model in a system to automatically send alerts to the operations teams.
  - **Data Engineering**: Maintained **PySpark** data pipelines and developed a custom uploader-factory system enabling 200+ non-technical users to upload data directly to the data lake.
  - **Data Science Community**: Part of the organising community for a 100+ member data science community. Presented a talk on software engineering best practices for data science.

- **American Express**   Brighton, UK
  Data Science Internship   *Jun 2022 – Aug 2022*
  - **Time Series Forecasting**: Developed a **time series forecasting model** leveraging Prophet and NeuralProphet to predict call volumes over various time horizons.
  - **UX Research**: Met with multiple stakeholders accross the business to understand their needs and pain points.

- **Looloo Technology**   Bangkok, Thailand
  Machine Learning Internship   *Jul 2021 – Dec 2021*
  - **Underline Detection**: Developed a novel **computer vision** algorithm based on **Gabor filters** to detect and remove underlines from handwritten text.
  - **Auction Price Prediction**: Continued working part-time on **feature engineering** of confidential order-book data for a **reinforcement learning** algorithm that predicts the auction price of a stock.

- **Mahidol University**   Bangkok, Thailand
  TA and Tutor   *Jan 2021 – Dec 2021*
  - **Discrete Maths TA**: Teacher assistant for course taught by Dr Piti Ongmongkolkul.
  - **Maths Clinic Tutor**: Helped students struggling with first-year undergraduate maths courses.

EDUCATION

- **University College London**   London, UK
  Master of Science in Computational Statistics and Machine Learning   *Aug 2023 – Present*
  - **Relevant Courses**: Reinforcement Learning (DeepMind), Open-Endedness and General Intelligence (Tim Rocktäschel et al.), Probabalsitic Unsupervised Learning (Gatsby).
  - **Thesis**: Working with Century Tech on **audio reasoning models** for automated grading of oral assessments.

- **Mahidol University International College**   Bangkok, Thailand
  Bachelor of Science in Applied Mathematics; GPA: 3.89   *Aug 2019 – Apr 2023*
  - **Relevant Courses**: Deep learning, Machine Learning, Optimization, Numerical Methods.
  - **Thesis**: Deep Q-Learning for Stock Portfolio Optimization.

- **NIST International School**   Bangkok, Thailand
  IB Diploma   *Aug 2017 – Jun 2019*

- **NPS International School**   Singapore
  IGCSE   *Aug 2008 – Jun 2017*