Jayasuryan Mutyala

+91 9902358432| +65 93399489 | jsmu.dev@gmail.com | GitHub: https://github.com/Jayasuryan0821

EDUCATION

Manipal Institute of Technology, Manipal, India (2021-2025)
- Bachelor of Engineering in Computer Science & Engineering (AI&ML), July 2025

Johnson IB World School, Hyderabad, India (2017-2019)
- Pursued International Baccalaureate Diploma Program (2017-2019)

Global Indian International School, Singapore (2007-2017)
- Pursued IGCSE (2015-2017)

PROJECTS

Stock Movement Prediction
- Implemented the baseline three-level moving average strategy.
- Performed a comparative analysis of supervised learning techniques such as Logistic Regression, Support Vector Machines and Decision Tree's to classify the best points to buy and sell shares.
- Estimates the profit or loss returned by each model.

Breast Cancer Detection
- Developed a deep learning model using CNNs to classify breast MRI scan images with an accuracy of 81% in distinguishing between IDC and Non-IDC cases.
- Implemented Transfer Learning with ResNet-18 architecture to leverage pre-trained weights, reducing training time and improving model performance.

Crime Detection Analysis
- Processed a vast historical dataset of crimes reported in Los Angeles using PySpark, enabling comprehensive data analysis and pattern recognition.
- Applied advanced clustering techniques, including KMeans and KModes, to identify central hotspots of crime and strategically map police stations, enhancing law enforcement resource allocation.

Social Media WebApp (HTML, CSS, JavaScript and Django)
- Created a simple social media webapp replicating the basic functionality of Instagram.
- Implemented basic features such as account creation, content sharing, following/unfollow other users and user search.
- Secure login and authentication for users.

Chemical Bond Detection
- Developed a machine learning model to classify hand-drawn chemical structures, utilizing features such as bond length, bond type, and molecular category (e.g., alkane, alkene).
- Implemented fundamental computer vision techniques with OpenCV for accurate bond detection and classification.

Extracurriculars

AppLab Hackathon (2023), Manipal Institute Of Technology
- Developed a comprehensive website providing mental health aid assistance to students.
- Demonstrated innovation by integrating OpenAI's API to create a user-friendly chatbot, enhancing the website's interactive features and accessibility.
- Achieved a top-10 placement in the competition, showcasing strong problem-solving skills and teamwork.

Cisco Hackathon (2024), Manipal Institute Of Technology
- Implemented simple forecasting sales model Prophet to predict the future forecasts for sales of each product.
- Leveraged Prophet's advanced time series forecasting capabilities to analyze sales data, providing valuable insights for business decision-making and planning.

National Service (2019-2021), Singapore
- Served as a combat medic in the Singapore Armed Forces (SAF)

Technologies and Languages
- Java, C, JavaScript, Python, SQL, HTML, CSS, Django
- Numpy, Pandas, Scikit-learn, OpenCV
- TensorFlow, PyTorch
- Linux and Windows

Certifications
- [Machine Learning Specialization - DeepLearning.ai](#)
- Big Data Specialization, University of SanDiego (Ongoing)