Jerome Neo

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EDUCATION

National University of Singapore (NUS), Singapore   **Aug 2020 – Present**
Bachelor of Science (Hons)
- Major in Data Science and Analytics; 2nd Major in Computer Science
- Relevant courses: Data Structures and Algorithms, Machine Learning, Computer Vision.

Northwestern University, IL, USA   **Sep 2022 – Present**
- Exchange Program: Design and Analysis of Algorithm, Intro to Artificial Intelligence, Statistical Computing, Human Computer Interaction.

TECHNICAL SKILLS

- Programming Language: Python, Java, R and C++.
- Statistical Tools: MATLAB.
- Google Data Analytics Professional Certificate.

WORK EXPERIENCE

A*STAR Research Internship Award, A*STAR SimTech, Singapore   **May 2022 – July 2022**
- Experimented on Long short-term Memory (LSTM) and Gated Recurrent Unit (GRU) in Tensorflow to predict difficult-to-forecast intermittent and lumpy time series demand data.
- Manipulated the data using Pandas and transformed data using Numpy and Sklearn.
- Integrated novel approaches like Ensemble Empirical Mode Decomposition (EEMD) on time series data to improve model performance.
- Proposed possible approaches during bi-weekly presentations and provided updates on model performance through data visualizations created using R.

ACADEMIC PROJECTS

Computer Vision to forecast "likes" on social media   **Jan 2022 – April 2022**
- Collaborated in pairs to forecast image "likes" and "views" on Instagram and Flickr respectively by inputting images through a Convolutional Neural Network.
- Experimented on bottlenecking using autoencoders to improve model performance in Pytorch.

Machine Learning for Stock Price Prediction   **August 2021 – November 2021**
- Coordinated a team of 6 students and applied KNN regression, ARIMA and LSTM to forecast the closing prices of a company stock.
- Applied analytical skills to explain the differences between predicting the stock prices in intervals of days, months, and quarters, and suggest the possible reasons for the model's performance.
- Presented and communicated the project findings in a succinct and effective manner.

EXTRA-CURRICULAR

NUS Makerthon, Singapore   **Dec 2021 – Jan 2022**
- Awarded 3rd place for our mobile application called "Moodal" which was built within a month.
- Collaborated in a team of 4 students from vastly different faculties in NUS to build a mobile application for the mental wellness of NUS students using React Native.

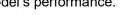**NUS Data Science Competition, Singapore**   **Jan 2021 – Feb 2021**
- Collaborated in a team of 4 to learn and apply basic computer vision tools (OpenCV) in Python, to count the number of printer cartridge chips present in a set of test images.

SKILLS AND QUALIFICATIONS

- **Languages:** English and Mandarin.
- **Interests:** Photography and running.