Yulun Feng

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Education

Master of Science, Information Systems Sep 2024 – May 2026
Northeastern University, Boston, MA

Bachelor of Science, Computer Science Sep 2019 – May 2024
Western University, Ontario, Canada

Work Experience

University of Electronic Science and Technology of China May 2022 – Oct 2022
Junior Data Analyst Chengdu, Sichuan, China

- Designed a data cleaning and visualization system in Python, reducing processing time by 50% compared to MATLAB and increasing data comparison speed by 70%. Utilized Python libraries like Matplotlib and Seaborn to enable real-time reliability assessments and help teams quickly identify outliers and operational inefficiencies.
- Constructed an artificial neural network (ANN) in Python with PyTorch and TensorFlow, leveraging self-supervised learning to analyze and model correlations between input variables and the target output. This ANN was optimized for predictive accuracy, enabling scenario testing and prediction under various parameter configurations.
- Deployed self-supervised learning techniques to enhance the ANN's feature extraction capabilities, ultimately refining its predictions and enabling the identification of optimal conditions for achieving the best output scenarios.

China Post Logistics May 2021 – Jul 2021
Junior Automation Engineer Xiamen, Fujian, China

- Improved OCR accuracy for mail barcode recognition by 30% through the deployment of machine learning, enabling effective handling of bad-quality images, especially for damaged and blurry barcodes.
- Improved operational efficiency by 15% by developing and overwriting RPA scripts with the Uibot framework, resulting in faster response and more accurate processing of mail-related tasks.
- Contributed to automation routine by designing and implementing workflow user models, significantly reducing manual interventions and streamlining logistics operations for improved overall efficiency.

China Mobile May 2021 – Jul 2021
Junior Data Analyst Xiamen, Fujian, China

- Used Python Scrapy to collect data from China Mobile's online fraud detection system, enhancing detection speed by 20% for fraud prevention analysis.
- Participated in network traffic analysis to identify unusual patterns and potential fraud indicators, contributing to a more robust detection system and supporting proactive fraud mitigation efforts.
- Implemented data cleaning and organization procedures in Excel to process and standardize large volumes of collected data, enhanced data reliability.

Projects

AI Store Search App Sep 2023

- Developed the server-side application using the CROW C++ framework, ensuring a scalable and robust infrastructure capable of handling high volumes of search requests and data processing.
- Designed and implemented the backend database using MySQL to efficiently store and manage items and attributes, supporting rapid retrieval of data and supporting seamless user queries.
- Integrated the ChatGPT API with a custom web interface built on a full-stack platform, utilizing advanced NLP for item tokenization and enable users to perform searches with ambiguous expressions, creating a more user-friendly experience.

Campus Map App Jan 2023

- Developed an interactive campus map application in Java, leveraging JSON for data storage and parsing to manage campus points of interest (POIs) and enhance user navigation across buildings and floors.
- Developed real-time pathfinding algorithms to provide users with optimized routes, supporting features like building and floor switching to streamline campus exploration.
- Designed a personalized search feature that utilizes custom tagging and history tracking, allowing users to save frequently visited locations and improve their navigation experience through a responsive, user-friendly interface.

Publication

- Yulun Feng, et al. A Dimension-Reduced Artificial Neural Network Model for the Cell Voltage Consistency Prediction of a Proton Exchange Membrane Fuel Cell Stack. Available on ResearchGate.