

Albert Wang

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SUMMARY

- I have 3 **YOE** in finance, with academic background in Data Science, Computer Science, and Electronic Engineer.

WORK EXPERIENCE

Northeastern University

Teaching Assistant - Algorithm

Sep. 2023- Present

Yik Data

Data Scientist

May. 2023- Aug. 2023

- Performed **ETL** process: Extracted data from Excel and JSON. Reformatted, cleaned and loaded data into DBEaver.
- Classified company into 4 groups by sales and other metrics with unsupervised **machine learning** K-means model.
- Recognized images from drones by implementing Mask R-CNN **deep learning** in Keras with a precision of **92%**.
- Identified key factors and predicted a city's economic trends using **Bayesian Networks** with RMSE = 1.92.
- Improved prediction accuracy with economic indicators using **Time Series** LSTM model with RMSE = 1.47.
- Automated analysis process by documenting my data structure, code, and analyze methods, enabling company to hire one less data analyst with no decrease in analytical efficiency, saved company more than **¥300,000/year**.

People's Bank of China

Data Analyst

July. 2020- June. 2022

- Calculated coefficient with time lag between trend of tax and economic indicators in python, analyzed them from macroeconomic perspective, and successfully wrote economic forecast reports for **governors** and **mayors**.
- Generated **500+** plots through **data visualization** tools like seaborn, matplotlib, ggplot2, PowerBI and Tableau.
- Established standardized statistical calibers with pandas, increased efficiency of energy statistical work by **40%**.
- Optimized energy-saving strategy by **A/B Testing**, reduced monthly consumption cost and CO2 emission by **21%+**.

PROJECTS

FineBI Competition | Visualization, Machine Learning

Aug. 2023

- Visualized a sales dataset in FineBI by filtering unimportant attributes with **PCA**, predicted sales by **LightGBM**.

Hackathon | Generative AI & Image Recognition

July. 2023

- Recognized text from menu pictures by **mmocr** in python and generated food pictures by using OpenAI API.

Vesuvius Challenge | Computer vision (Kaggle competition silver medal, ranked 46th out of 1,249 teams)

June. 2023

- Used 2.5 dimension method with **ResNet**, **segmentation**, **TTA** and tuned parameters to identify texts in a scroll.

Database of Zelda | SQL

June. 2023

- Created a **MySQL** database with Third Normal Form, improved players' information retrieval efficiency by **50%**.

Study Plan with Greedy Algorithm | Dynamic Programming

Apr. 2023

- Initiated an original idea to make study plan according to **ROI** after evaluating investment and return of courses.

HIV Heat map | Data visualization & Web Development

Feb. 2023- Apr. 2023

- Analyzed HIV data insightfully by **Simpson's paradox** and developed interactive heat maps on a webpage.

EDUCATION

Northeastern University, Portland, ME

Jan. 2023 - Present

- Candidate for *Master of Science in Data Science (GPA:3.9/4.0)*

Expected Graduation: Dec. 2024

California State University, Sacramento, CA

Aug. 2017 - May. 2018

- Computer Science (GPA:3.78/4.0)*

Yangzhou University, China

Sep. 2016 - June. 2020

- Bachelor of Science in Electronic Engineer (GPA:3.33/4.0)*

SKILLS

- Programming Languages:** Python(sklearn, numpy, pandas, scipy, PyTorch, tensorflow), R, SQL, Java, C, C++, C#
- Machine Learning:** Federated Learning, Random Forest, SVM, XGBoost, CatBoost, U-Net, PCR, LASSO, KNN
- Tools:** Jupyter Notebook, PyTorch, AWS, Azure, Docker, Spark, Hadoop, Hive, git, Google Colab, MATLAB