Seaqueue Cheng

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Education

Northeastern University, Portland, ME   Sept. 2024 – Present
Major in MSAI at Roux Institute

Northeastern University, Boston, MA   Sept. 2020 – May 2024
Major in Computer Science at Khoury College

Skills

Tools: Python, Java, Pytorch, OpenCV, NumPy, Pandas, Plotly, CVAT, Roboflow, React (HTML + CSS + JS/TS),
                Ruby, Racket, Lean, C, Assembly, PostgreSQL, Sqlalchemy
Software: MacOS, GitHub & GitLab, VS Code, Jupyter Notebook, IntelliJ, PyCharm

Research

TRAFICC (Fish Detection and Tracking):   Sept. 2024 – Present
- Preprocessed 162K fish images including annotation, augmentation, regrouping, converting file types, renaming.
- Generated 5k synthetic fish images with **SAM2** models on different backgrounds.
- Trained and fine-tuned **Yolo11** on HPC to 90%+ accuracy.
- Combined with **Yolo Counting / Byte Track** to count the fishes passing through the fish ladder.

Experiences

Global Nursing Talent Inc.
Full Stack developer, CO-OP: GNT   Aug. 2023 – Dec. 2023
- Developed the website in Ruby from scratch to production that helps the company to recruit the first nurse at lease 3 months earlier.
- Set up muti-login, dashboard, progress-bar and languages switching between English and Spanish to fit the company's new target clients in Mexico, Singapore, Canada and Chile.
- Created searching, filtering and granting features on candidates for admin that help the managers plan ahead the priority of recruiting candidates.
- Stored texts-based info to PostgreSQL, and files/images to AWS; Streamlined overall UI/UX with Bootstrap.

Quantitative Trading – Start up   Nov. 2022 – Present
- Working with a financial peer to create a Quant Trading program in Python.
- Analyzed and visualized industries and further, industries members on data like PE and Total Capital with Plotly that helped us to filter out industries and specific companies within the industry to perform back test on.
- Organized data with Pandas-DataFrame and CSV files (converting data to dictionary to trade for time).
- Predicted price trends using Machine Learning -- Regression, Classify, Clustering, and Time Series models.

Seminaut Inc, San Marcos, TX
Full Stack developer, CO-OP: Guild Gaming   July 2022 – Dec. 2022
- Pushed the website to the next version by implementing events information, pagination, badge System, filtering on events, venues and articles which all involve taking user inputs, saving, and fetching data to and from the Sqlalchemy database through API calls.
- Promoted to group leader of 9 teammates since Oct. 2022. Led the team to design and implemented interactive Post System that users can share texts and images with followers and the basic Bracket System for tournaments.