

Zhewen Huang

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EDUCATION

Miami University

2021.08-2023.05

Master of Science in Computer and Information Sciences | **GPA: 3.85/4.0**

CUNY Graduate Center

2024.08-

Ph.D. Student in Computer Science | **GPA: 3.97/4.0**

SKILLS

Programming Languages: Python (Pytorch, Numpy, Pandas, Scipy, Matplotlib) | C | C++ | SQL | Java | HTML

Tools: VSCode | Visual Studio | Cursor | Jupyter | MySQL | Microsoft Office | Adobe | Git | Codex

Technologies: Linux | CUDA | VLM | Deep Learning | Software Engineering | LLM | Image Processing | Gen AI

PROFESSIONAL EXPERIENCES

Crowdsourcing Crowdfunding Technologies

2023.07-2024.06

Software Engineering Intern

- Collaborated with the development team to explore deep learning technologies for trading on large **real-time financial dataset**.
- Implemented **automated validation scripts** to detect anomalies in trading data.
- Enhanced the **accuracy of market forecasts** and led to better-informed trading decisions.

PROJECTS AND RESEARCHES

Predicting Developmental Delay in Preterm Infants

- Used the perinatal records and longitudinal features up to 25 months of 1106 preterm infants from Richmond University Medical Center's NICU.
- Utilized **LLM** to paraphrase the tabular data of each infant.
- Utilized **BIOBERT** to predict if delay in 25 months.
- Achieved a >80% accuracy and a 20% **increase** in accuracy compared to random forest based model.

Engagement Prediction In YouTube Educational Videos

- Implementing a **CNN** network to predict the **average watch percent** and **like per view** of educational videos on YouTube.
- Converted video to frames and used **GoogleNet** to extract features of each frame.
- Utilized **self-attention network** and regressor network to get the per frame importance score.

ECT-3DMedSAM: Efficient Cross Teaching Using MedSAM2 for Semi-Supervised 3D Medical Image Segmentation

- Designed an efficient dual-stream consistency learning pipeline by training **2% of parameters**.
- Conducted rigorous failure mode analysis and optimization on datasets with **multiple modalities**.
- Achieved a 57.9% reduction in the average 95% Hausdorff Distance compared to **MedSAM2**.

News Headlines Classification

- Captured 40,000 news headlines of different websites using **BeautifulSoup**.
- Deleted duplicate and incomplete news headlines using **Numpy** and **Pandas**.
- Implemented the classification on news headlines using **Naive Bayes** and different machine learning methods in **Sklearn**.
- Achieved a >75% accuracy.

Easy Workflow Platform

- Integrated automatic file classification, tabbed management, intelligent push of schedule reminders, cross-platform services to help users arrange their work and study.
- Utilized **Spring Cloud** and **Flask** for back end to combine Java and Python.
- Utilized **Vue.js** for front end with **MVVM** model for better decoupling of View and Controller and easier management.
- Used **WRK** and **Skipfish** for performance testing and security testing.
- Went through a complete software development cycle and made some presentations cooperating with two people.

Microlearn Classroom System

- Developed a web app for the management of students, teachers, and classes like Canvas.
- Utilized **HTML**, **CSS**, and **Javascript** for the design of the web page.
- Used **SQL SERVER** for the back end to store the data cooperating with another person.
- Implement the front end for the teachers by **Visual Studio**.