Elvira Xiong

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Education

University of Massachusetts Amherst | Amherst, MA

M.S. in Computer Science - Bay State Scholar - GPA: 3.70/4.0 **Sept 2023 - May 2024**
B.S. in Computer Science - GPA: 3.77/4.0 **Sept 2019 - May 2023**

- **Relevant Courses:** Artificial Intelligence, Public Interest Technology, Search Engine, Fair AI (AI Ethics), Neural Network, Machine Learning, Game Theory, Game Programming, Computer Network, Data Structures, Algorithms for Data Science, Software Engineering, Web Development

Technical Skills

Programming Languages: Python, Java, HTML/CSS, JavaScript, TypeScript, SQL, C, C#

Developer Tools: VS Code, Git, Jupyter, PyTorch, TensorFlow, Sublime, Android Studio, React, React Native, Remix, Prisma, Pandas, SciKit-learn, Microsoft Office, Unity, Eclipse, Linux

Experience

Front-End Intern | AudioShelf, Amherst, MA **Jan 2023 - Mar 2023**

- Identified and addressed user interface issues
- Built and brainstormed new features to improve user experience
- Tested new functionalities to ensure the app is working properly
- Utilized TypeScript and React Native

Data Scientist | DSC-WAV(NSF), Amherst, MA **Aug 2022 - Dec 2022**

- Collected the info on the courses offered by Manning College of Computer Science and Informatics
- Organized course information and specified instructors, offering terms, course description
- Analyzed data to generate the course tree that students can take from the collected info
- Funded by the National Science Foundation

Projects

LLM Re-Ranking for Personalized Headline Generalization | Individual Study **Fall 2023**

- Built a simplified version of the original LaMP project by using a popular Large Language Model *GPT3.5-turbo* and classic Retrieval Model *BM25*
- Proposed a stronger version of the original project by adding a re-ranking model *Cohere rerank-english-v2.0* after using BM25 for retrieval, which returns a better Rouge-l score by 0.003 and Rouge-L score by 0.001

Comment Toxicity Classification Avoiding Bias | Group Research **Fall 2023**

- Responsible for using Marginal Interventional Mixture (MIM) to analyze the toxicity of the WILDS CivilComments Dataset and the Youtube Comments Dataset from Kaggle.
- Received a lower [lower better] percentage of non-toxic comments with protected attributes misclassified and a higher percentage of Model Accuracy by using MIM than the Baseline Model

Eat This! | Course Project **Fall 2022**

- Developed the Suggestion algorithm based on the food preference, allergy ingredients, and food provided by the dining hall at UMass Amherst
- Scraped the dining info and food choices of the UMass Amherst Dining Commons