Haoran Xu

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EDUCATION
- **Wesleyan University,** Middletown, CT   **Graduation:** December 2024
- **Bachelor's Degree, Double Major:** Computer Science, Economics   **GPA:** 3.72/4.00
- **Relevant Courses:** Applied Data Analysis, Quantitative Methods in Economics, Algorithms and Complexity, Computer Networks, Machine Learning Methods for Audio and Video Analysis, Software Engineering

SKILLS
- **Primary Coding Languages**: Python, R
- **Secondary Coding Languages/Technologies**: PHP, TensorFlow, JavaScript, OCaml, Bash, STATA, SML, C, HTML, CSS, Bootstrap, React, React Native, Node.js, Flask, SQL
- Data Analysis, Cleaning, Report Creation
- Delivering Presentations

WORK EXPERIENCES

Undergraduate Research Assistant   February 2023 – Present
Wesleyan University   Middletown, CT
- Predicted node interactions and intermeeting time at a 65% accuracy rate to create a generalizable neural network and improve the feature set of a mobile network simulator using LSTMs and TensorFlow
- Generated, cleaned, and analyzed mobility model data to train neural networks using BonnMotion, shell scripts, and Python scripts
- Improved code modularity by overhauling function parameters using argparse and **kwargs, and by simplifying modules to have a more targeted purpose
- Reduced memory usage by rewriting RL agent training function to execute inside child processes
- Reduced process' memory leak by 25% using TensorFlow predict methods

Science Library Help Desk   August 2022 – Present
Wesleyan University   Middletown, CT
- Provided excellent customer service, basic IT support such as troubleshooting printer and network issues, and general administrative support

Course Assistant   August 2022 – May 2023, January 2024 – Present
Wesleyan University   Middletown, CT
- Graded coding assignments and provided thorough feedback on improving code efficiency, correctness, and syntax
- Hosted help sessions and answered questions on course material

PROJECTS

Water Dispenser Web App (in development)   January 2024 – Present
- Developing a web app for finding water dispensers at Wesleyan using React and React Bootstrap
- Implementing authentication tokens, limits on API requests, and ability to search dispensers by attributes
- Developed a RESTful API for water dispensers at Wesleyan using Express.js, SQL, and AWS

MyMusicList   October 2023 – November 2023
- Developed a basic Android app and web app for users to rate songs and share them with others using React Native, Expo, React, and React Bootstrap
- Created a RESTful API for rating songs using PHP, SQL, and XAMPP

Classification of Emotion in Human Speech   April 2023
- Trained a convolutional neural network to detect and classify emotions in speech using ResNet-34 and transfer learning

EXTRACURRICULARS
- **Wesleyan Christian Fellowship**, President
  - Created newsletters, flyers, and posters, organized group meetings, and managed club finances
- **Wesleyan Computer Science and Coding Club**, Member
  - Collaborated with members to engage in learning opportunities and professional development events
- **Wesleyan Kendo Club**, Member