JEFFREY XIANG

(781) 739-0729 | jjx5@cornell.edu | www.linkedin.com/in/jeffrey-xiang

EDUCATION

Cornell University   **Ithaca, NY**
Bachelor of Science in Computer Science   Expected May 2025
- GPA: 4.0, Major GPA: 4.0, Dean's List
- Relevant Courses: Object-Oriented Programming, Machine Learning, Discrete Structures, Functional Programming, Analysis of Algorithms, Computer System Organization and Programming, Linear Algebra

RELEVANT EXPERIENCE

Ametek   **Bedford, MA**
Software Engineering Intern   May 2023 - Present
- Designed a Python app from scratch built for testing circuit boards serving as digital pulse processors, implemented full-stack system with front-end UI and back-end test suite, integrating existing communication software to devices
- Decreased avg board testing time by 20% from previous Visual Basic code; app used to test 5000+ boards per year
- Utilized PySerial, PyUSB, and Socket library for communications; Tkinter, MatPlotLib, Threading library for UI
- Analyzed and accurately reimplemented existing Visual Basic test suite; created procedure for deploying app

Cornell Autoboat Project Team   **Ithaca, NY**
Software Controls Co-Lead   February 2022 – Present
- Led team of 8 students handling software motor controls for an autonomous boat competing in the RoboBoat competition (2023 Finalist), with a focus on path algorithms based on A* and pure pursuit algorithms
- Implemented microcontroller code for serial communication with the boat to send commands and update status
- Created task algorithms in Python using computer vision inputs from ZED camera and NumPy library
- Developed simulations using MatPlotLib and test procedures for tuning PID parameters to improve performance
- Conducted design reviews with 20-person CS subteam and overall 40-person project team

Thiede Lab   **Ithaca, NY**
Undergraduate Researcher   August 2023 – Present
- Worked under professor Erik Thiede, researching protein behavior using Cryo-EM for drug discovery
- Developed folding algorithms and software packages for proteins using PyRosetta, VMD, PyMol

Cornell University - Bowers College   **Ithaca, NY**
Teaching Assistant for CS 2110 (Object-Oriented Programming and Data Structures)   August 2022 – Present
- Taught lab sections of 50+ students using Java and walked students through sample questions and code
- Held office hours and debugged student code, efficiently answered questions from queues of 100+ students

Final Exam Scheduling Research Team   **Ithaca, NY**
Undergraduate Researcher   January 2023 – May 2023
- Collaborated with a team of undergraduate student researchers under the supervision and guidance of Professor David Schmoys to aid Cornell University's Registrar with optimizing the final exam schedule each semester
- Minimized different types of exam conflicts using linear programming, block assignments, and block sequencing
- Analyzed machine learning algorithms predicting future semesters' enrollment using data from previous semesters

PROJECTS

Spotify Playlist Creator (Javascript, HTML, CSS)
- Utilized Spotify's API and set up OAuth 2.0 tokens to access user liked songs and liked artist data
- Curated playlist based off of retrieved data and displayed information to user interface

Go Fish (OCaml)
- Designed multiplayer Go Fish game to be played in Terminal with information sharing mimicking an in-person game
- Developed and published working gameplay and installation instructions and customization features

SKILLS AND INTERESTS

Languages: Python, Java, C, JavaScript, HTML, CSS, OCaml
Other Technical Skills: React, Adobe InDesign, Microsoft Excel, Fusion 360
Interests: Soccer, Violin, Journalism