Michael Xie

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EDUCATION

University of Massachusetts Amherst   **Amherst, MA**
B.S. Computer Science   *Expected May 2025*
- GPA 3.56/4.0
- Related Coursework: Data Structures and Algorithms, Computer Organization, Algorithms, Statistics, Abstract Algebra

EXPERIENCE

University of Massachusetts Amherst   **Amherst, MA**
Undergraduate Research Volunteer   Dec 2022 - Feb 2023
- Analyzed 6 different algorithms, including differential privacy and noise addition, and applications in the secure transfer of information in server-client nodes
- Implemented 3 noise-addition algorithms utilizing Keras.io, Tensorflow, and Scikit-Learn to model privacy-preservation
- Presented a poster with 2 other students detailing the results of the research project, with visualizations illustrated with Matplotlib

PROJECTS

CocktailBot| JavaScript, Node.JS
- Developed a responsive Discord bot using JavaScript and the Discord.js API
- Implemented a text parser to give users 6 commands to submit requests for over 600 different drinks and 489 ingredients

Language Interpreter| JavaScript, Node.JS
- Created a language interpreter in Javascript and Node.JS for a simple language that evaluates a program's correctness
- Structured methods to separate each line into 6 different types and checks for correctness at that line and the state of all variables at that time

Personal Website| React.JS, TailwindCSS, HTML
- Built a personal website utilizing React.Js, HTML, and TailwindCSS
- Showcased personal and academic projects and achievements, detailing skills, languages, libraries, and frameworks used in the development of projects
- Structured the website to include 5 sections, including an about, timeline, projects, and experience sections

LEADERSHIP/CO-CURRICULAR ACTIVITIES

CICSoft   **Amherst, MA**
Logistics Team Member   *Sept 2022 - Present*
- Distribute weekly newsletters to more than 50 members of CICSoft
- Host and facilitate discussions regarding technologies like Web3, Artificial Reality/Virtual Reality, and ChatGPT
- Mentor 50 members through designing and developing projects via presentations and other activities

UMass CICS-COST   **Amherst, MA**
Volunteer   *Sept 2022 - Present*
- Conduct IT support sessions once(1) a week in teams of 3 or 4 for local community groups such as Amherst Neighbors
- Encourage 30+ students a semester to pursue STEM fields through presentations and workshops
- Promote STEM and Computer Science to local Elementary and Middle schools in the Pioneer Valley region through teaching and demonstrations 3 times a semester

UMass Sci-Outers   **Amherst, MA**
Volunteer   *Sept 2021 - Sept 2022*
- Created and performed 10 science shows for 7 elementary and middle school students in the Pioneer Valley region in teams of 4 students
- Prepared and designed experiments with 15 other students to showcase specific parts of physics and chemistry like vibration

SKILLS

Languages: Java, Python, HTML/CSS, JavaScript, C, C++
Libraries/Frameworks: React.js, Tensorflow, Keras.io, TailwindCSS, Numpy, Matplotlib, SciKit, Django
Tools: Git/Github, Linux, APIs