Eric Xie

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A motivated and passionate computer science and math student with substantial independent project experience seeking to learn and grow through a professional internship.

Education

University of Maryland | GPA: 3.964 — College Park, MD

Bachelor of Science in Computer Science, Bachelor of Science in Mathematics — *Expected May 2026*

Relevant Coursework: Object Oriented Programming, Computer Systems, Differential Equations, Calculus III, Discrete Structures, Probability Theory, Advanced Calculus I

Technical Skills

Skills: JavaScript, Java, Python, HTML/CSS, C, Matlab, C#, ReactJS, NodeJS, Bulma
Developer Tools: Git, VSCode, Unity, Jupyter, IntelliJ, Google Colaboratory
Libraries: sklearn, pandas, p5js, NumPy, Matplotlib, beautifulsoup4

Work Experience

Machine Learning Intern | *Python* — June 2022 – August 2022

Precidiag — *Watertown, MA*

- Explored methods to optimize training data selection in machine learning.
- Implemented active learning and dimensionality reduction techniques.
- Achieved comparable model accuracy with two orders of magnitude fewer data.
- Used Google Colaboratory and Python libraries including NumPy, pandas, sklearn, and Matplotlib.

Software Developer Intern | *Python* — June 2021 – August 2021

Precidiag — *Watertown, MA*

- Built a web-scraper for the MEROPS online database for peptidase and protein interactions.
- Created code to populate, serialize, and deserialize several edge lists including CID, and SMILES representations.
- Used Jupyter Notebook and Python libraries including beautifulsoup4, PubChemPy, requests, pickle, and bz2.

Project Experience

StudyBrew | *Javascript, HTML/CSS, Git* — April 2023

- Created a study timer to help students stay focused for longer in a stress-free environment.
- Utilized tools such as ReactJS and Bulma for frontend and Firebase for backend.
- Won "Best First Time Hack" award at the Bitcamp hacakathon.

Word Bord | *Javascript, HTML/CSS, Git* — February 2022 – April 2022

- Designed and developed a daily word puzzle web game with spinning mechanics inspired by a Rubik's cube.
- Built an API to fetch the daily boards and solutions, and manage the leaderboard.
- Used Google Analytics to track site visits and optimized SEO.

Word Bord Solver and Generator | *Java* — October 2021 – December 2021

- Implemented a greedy algorithm to generate high scores for Word Bord.
- Utilized the solver to generate puzzles with high scores for more possible words and a better player experience.
- Generated a file with move sequences corresponding to each day's high score calculation.

24 Card Game | *Javascript, HTML/CSS, Git* — May 2018 – May 2020

- Recreated a mathematics card game to increase accessibility and enhance the game's experience.
- Wrote a function to check every possible permutation of cards, operations, and parenthesis.
- Generated every possible solution to each set of cards and accepts user inputted cards.

Awards and Activities

University of Maryland Dean's list — January 2023 – Present

University of Maryland Chinese Student Association Internal Vice President — April 2023 – Present

FIRST Robotics Competition Team 5735 - NE District Championship Semifinalists — April 2022

FIRST Robotics Competition Team 5735 - World Championship Qualifier — April 2022

USA Computing Olympiad Gold Qualifier — December 2018