Eric Xie

508-314-5695 | ericxie6@gmail.com | erictxie.com | github.com/ericx1e

A motivated and passionate and creative student proficient in several programming languages with substantial independent project experience seeking to learn and grow through a professional internship.

Education

University of Maryland College Park, MD

Bachelor of Science: Computer Science and Mathematics majors, Computation Finance minor *Expected May 2026*

- GPA: 3.94/4
- Chinese Student Association Internal Vice President 2023–2024
- Computer Science Honors
- Dean's List for all 4 semesters

Relevant Coursework: Probability Theory, Advanced Calculus Analysis, Algorithms, Computational Methods, Data Science, Data Structures, Portfolio Management, Partial Differential Equations, Machine Learning

Technical Skills

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

Work Experience

Boston Scientific May 2024 – Present

Rhythm Management R&D Engineering Intern *Arden Hills, MN*

- Developing custom code generation using retrieval augmented generation and fine tuning.
- Exploring and evaluating various local LLMs, embedding models, and vector stores.
- Utilized AWS SageMaker and various Python libraries including transformers, Langchain, and Qdrant
- Creating a usage guide for prompt engineering and training DEV engineers.

Precidiag June 2022 – August 2022

Machine Learning Intern *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.

Precidiag June 2021 – August 2021

Software Developer Intern *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

Financial Models and Portfolio Optimization | *Python, Jupyter* April 2024 – Present

- Exploring various economic and statistical factor models to model and predict stock returns.
- Visualizing and investigating anomalies to certain models, especially CAPM (Capital Asset Pricing Model).
- Utilizing Python libraries such as Numpy, Pandas, sklean, matplotlib, and statsmodels.

StudyBrew | *React, JSX, 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.
- Implemented an accompanying solver and puzzle generator using Java