JASON ZHENG

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EDUCATION

Rensselaer Polytechnic Institute   Expected May 2028
Bachelor of Science, Computer Science,   Cumulative GPA: 3.63
& Information Technologies and Web Science

- Relevant Coursework: Computer Architecture & Operating Systems, Web Systems Development, Foundations of Computer Science, Data Structures & Algorithms, Multivariable Calculus & Linear Algebra
- Dean's Honor List
- Sigma Chi Fraternity Involvement

PROJECTS

Go Gaia | *Machine Learning, Computer Vision, Microsoft Azure Services, Flask*   September 2025

- Trained a **Microsoft Azure Custom Vision** model to classify the recyclability of an object through an image at **~70% accuracy**.
- Integrated **Flask** to process front-end data and manage API communication with the Python backend.
- Utilized **Git** for version control and **GitHub** to effectively develop the application with the Team of 3 others.
- Received award from Avanade for best use of Microsoft Azure's AI.

Financial Reinforcement Learning Research | *Data Analysis, Pandas, NumPy*   September 2025 - Present

- Modified an outdated Gym-Trading-Env environment to fit the usage of a modern Financial Reinforcement Learning (**FinRL**) pipeline.
- Engineered API-driven pipelines to collect, clean, and normalize OHLCV, sentiment, and statistical features for high-accuracy modeling.
- Evaluated the impact of training the **Proximal Policy Optimization (PPO)** Trading Agent under the new environment implemented.
- Integrated a custom Gymnasium trading environment into the FinRL reinforcement learning pipeline, refactoring environment registration and training interfaces to support **Stable-Baselines3** PPO agents.

Data Pulse | *PyArrow, Flask, Pandas, Parquet, Bloomberg Terminal*   September 2025 - Present

- Used the Bloomberg Terminal to compare and bridge the data gap from the end of the historical recordings to the present.
- Developed code to route and parse **10 million+** lines of stock data on **4,000+** companies over the past decade.
- Reduced time of look-up for researchers by about **250%**.
- Created filtered data that can be tabularly or graphically visualized.

Scrappy | *PHP, SQL, Native JavaScript, HTML, CSS*   February 2025 - May 2025

- Developed a social media app with dynamic post-editing (with no help from frameworks) and interactive UI components, receiving 90% positive feedback from users.
- Built a back-end relational database for storing user account data and content using **SQL**.
- Managed project using **Git** version control and utilized **GitHub** to develop the platform effectively with my team of 2.

EXPERIENCE

PerCapita Group, Inc. | *IIS, Soldering, Postman*   December 2023 - May 2024

- Modernized an outdated AMP home automation system by reverse-engineering legacy APIs and testing functionality with **IIS and Postman**.
- Worked with the Chief Technologies Officer to see how technical decisions map to stakeholder needs and delivery timelines.

SKILLS

Programming Languages: C/C++, Python, Java, JavaScript, SQL, HTML/CSS, PHP, R, MIPS Assembly
Frameworks: jQuery, Node.js, React.js, MySQL, Pandas, NumPy, Flask, PyArrow, Stable-Baselines3
Tools: Bloomberg Terminal, Render, IIS, Git, GitHub, VS Code
Concepts: Object-Oriented Programming, Relational Database Design, Postman API