Yash Shah

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EDUCATION

Rutgers, The State University of New Jersey New Brunswick, NJ
Bachelor of Science in Computer Science and Economics with a minor in Mathematics *May 2026*
- **Activities:** Rutgers Competitive Programming, Quantitative Finance Club, Data Science Club, Cloud Computing Club, Omicron Delta Epsilon (Economics Honor Society), Habitat For Humanity, American Cancer Society
- **Major GPA:** 4.0/4.0
- **Relevant Coursework:** Data Structures, Computer Architecture, Intro to Discrete Structures, Multivariable Calculus, Data101, Intro to Linear Algebra, Intermediate Microeconomic Analysis, Intro to Statistics

EXPERIENCE

Incoming Software Engineering Intern Summer 2024
Hewlett Packard (HP) *Remote*
Lead Instructor May 2022 – May 2023
Mathanasium *Edison, NJ*
- Enhanced student engagement and learning outcomes by designing and implementing unique teaching methods, resulting in a 25% increase in retention of students year over year
- Utilized data-driven insights to develop a tailored curriculum for each student, fostering an average of 2 grade-level improvements in math proficiency over 6-month intervals
- Elevated team performance by conducting thorough skills assessments of instructors, strategically allocating tasks based on proficiency levels, resulting in heightened productivity and exceptionally low turnover

PROJECTS

Rutgers Foodies September 2023
- Employed reverse engineering techniques to parse and the Rutgers getInvolved API, filtering for "Free Food," converted it into a **pandas** data frame, processed the data with BeautifulSoup, and converted it to a JSON file
- Leveraged the **React.js** to architect a highly dynamic and responsive user interface utilizing TailwindCSS for intricate styling, ensuring optimal user engagement and experience
- Demonstrated adeptness in **Git** version control to manage collaborative development effectively deploying the web application on GitHub Pages, showcasing proficiency in deployment strategies for accessibility to a global user base

RESTaurant Rater July 2023
- Developed the end-to-end conceptualization, design, and implementation of a highly resilient back-end REST API, tailored for the management and seamless processing of JSON data focused on user-generated restaurant reviews
- Integrated the powerful combination of **Express.js** and **Node.js** to handle HTTP requests, ensuring seamless routing of JSON data to and from the **PostgreSQL** database
- Engineered intricate CRUD operations, employing sophisticated SQL queries to facilitate database modifications via JSON data inputs to optimize data retrieval operations from the database for enhanced efficiency

Pairs Trading Script June 2023
- Analyzed time-series data for two correlated stocks, culminating in a **pandas** data frame to store the daily returns of each stock relative to the prior day's closing price
- Identified key divergence points between the two correlated stocks by crafting a unit root function that executed a rigorous T-test to assess the statistical significance of the divergences, optimized utilizing **SciPy**
- Generated trading signals based on the analysis outcomes, determining opportune moments for trading, calculated gross/net returns, and bench-marked them against the market, returning an alpha value to gauge performance

TECHNICAL SKILLS / OTHER

Web Technologies: JavaScript, TypeScript, PostgreSQL, React.js, Node.js, Express.js, HTML/CSS, TailwindCSS
Data Analysis & Other Tools: Python, R, pandas, NumPy, Matplotlib, Plotly, SciPy, BeautifulSoup, Git, LaTeX
Interests: Board Games, Cars, Coffee, Piano, Bagels, Photography, Hiking, Basketball, Formula 1