Brennan Lagasse
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SUMMARY

Dedicated computer and data science undergrad excited about taking on challenging unsolved computational problems with a track record of successfully doing so as a researcher. Ready and enthusiastic to take ownership of meaningful projects and ensure high-quality results.

EDUCATION

Yale University, New Haven, CT — Class of 2026

- Prospective BS in Computer Science and Math and BS in Statistics and Data Science (GPA 4.0)
- Coursework on Algorithms, Machine Learning, Probability Theory, Data Analysis, Discrete Math, Real Analysis
- Recipient of First-Year Summer Research Fellowship for proposed research on quantum error correction

Mark T Sheehan High School, Wallingford, CT — Class of 2022

- Valedictorian, US Presidential Scholar Semifinalist, President of Math Team, Mock Trial, STEM Team

WORK EXPERIENCE

Yale Computer Science, Undergraduate Learning Assistant, Yale University — Aug. 2022 – Present

- Elucidate complex topics in software engineering, data structures, and debugging during weekly office hours
- Guide students through approaching and solving challenging interview-style questions

Efficient Computing Lab, Research Assistant, Yale University — May 2022 – Present

- Envision the first fast and scalable algorithm for realistic quantum error correction using a new representation of quantum circuits and dynamic programming to make error correction orders of magnitude faster
- Implement algorithm in Rust with rigorous standards for time and memory usage and empirically demonstrate its accuracy and groundbreaking scalability
- Regularly collaborated with researchers to gain new insights and frequently presented findings
- Publication in progress to introduce insights on error correction algorithms to the scientific community

Meyers Lab, Research Assistant, Yale University — Nov. 2022 – May 2022

- Develop algorithms to process and analyze two-photon calcium imaging of the brain to understand the flow of information in the brain and the disruptive impact of imaging techniques
- Identify valuable features of complex, high-dimensional neural data for further analysis

A Step Ahead Soccer, Software Engineer, Wallingford, CT — June 2021 – Aug. 2022

- Collaborated with the owner to develop an original reactive target system for personalized soccer training
- Developed software for twenty interactive soccer drills currently used to train dozens of students every week
- Built an app that enables company staff to wirelessly run drills and receive feedback on player performance

LEADERSHIP & INVOLVEMENT

Yale Undergraduate Quantum Computing Club, Director of Invited Talks

- Explore math and physics models of quantum computers and applications in machine learning in project teams
- Network with experts in quantum computing to organize compelling talks on recent quantum breakthroughs

Yale Society for Quantitative Finance, Member — Nov. 2022 - Present

- Investigate methods for modeling financial and time series data and explore research on ML in finance
- Competed in trading games and participated in lecture series on market making and asset classes

TECHNICAL SKILLS

- Languages: Python (Pandas, PyTorch, TensorFlow), Rust, Java, C, C++, R, MATLAB, Racket, JavaScript, SQL
- Skills: Machine Learning, Data Analysis, Software Engineering, Algorithms, Math