

Frank Stearns

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EDUCATION

Colgate University

Bachelor of Arts, Double Major in Applied Mathematics and Economics
GPA: 3.86/4.00; Dean's Award with Distinction (All eligible semesters)

Expected May 2026

Hamilton, NY

EXPERIENCE

Software Engineer II Intern

Walmart Global Tech

June 2025 – Present

Sunnyvale, CA

- Developed Otto, Walmart's proprietary automated unit testing tool, as a Visual Studio Code extension. In under three weeks, Otto generated 150K+ lines of test code, saving 240–320 engineering hours and \$23K–\$30K in development costs.
- Engineered backend infrastructure for Otto, deploying Java-based Model Context Protocol (MCP) servers and integrating GPT-4.1 LLMs to enable scalable, AI-powered test generation across Java, Python, Scala, and SQL codebases.
- Maintained Walmart's supply chain tracking data pipeline, processing, stitching, and indexing 10K+ terabytes of data daily in near real time with 50 ms average request latency.

Actuarial Intern

Select Health

June 2024 – July 2024

Murray, UT

- Applied statistical methods to establish the Affordable Care Act rates for 400K+ insured individuals and small employers.
- Calculated individual and plan risk scores to determine the final recipients of \$1M+ in risk adjustment payments.
- Investigated elevated claim rates among Idaho members utilizing Utah-based healthcare providers, identifying cost drivers and implementing educational initiatives to reduce per-encounter costs by 60%.

Computational Mathematics Lab Assistant & Calculus Tutor

Mathematics Department

Sep. 2023 – May 2024

Hamilton, NY

- Instructed 20 students in the development of complex algorithms in MATLAB to perform root finding methods, logistics maps, and model fractal curves in the complex plane resulting in a marked improvement by up to 2 letter grades.
- Developed optimized learning strategies to decrease the time to understand MATLAB and LaTeX syntax by 2-3 weeks.
- Taught over a dozen calculus students, leading to demonstrable improvements in their comprehension for mathematics, as evidenced by several students choosing to pursue mathematics-related degrees or displaying increased engagement in advanced math courses.

ACTIVITIES & LEADERSHIP

Financial Analyst - REIT Group

Colgate Investing Group

Sep. 2022 – Dec. 2022

Hamilton, NY

- Assisted in the management of a \$45K+ investment fund, gaining over \$2.5K used towards Colgate financial aid.
- Researched new trading strategies to improve the diversification of the Colgate Investment Group portfolio through the addition of real estate investment trust shares.
- Parsed dozens of 10-Ks to estimate the risks and returns by analyzing the free cash flow margins, debts, and other useful metrics.

Team Captain & Varsity Athlete

Alpine Ski Team

Sep. 2022 – Present

Hamilton, NY

- USCSA All American Team for Academic Excellence 2023
- Manage the funds, travel, and organization of over 150 athletes and members for one of the most competitive USCSA ski teams in the country.

Host of Weekly Radio Show

WRCU FM

Sep. 2022 – Present

Hamilton, NY

- Broadcasted over 30 music history shows about different artists in numerous genres, each with over 2 hours of academic research.

SKILLS, CERTIFICATIONS, AND INTERESTS

Certification of the Foundations of Commercial Real Estate

Urban Land Institute

July 2023

Technology: Proficient in Python, Java, MATLAB, SQL, Typescript, Scala, Dart, and Excel — 2024 “GateHacks” Hackathon Winner.

Quantitative Methods: Proficient in advanced quantitative techniques including numerical analysis, linear algebra, differential equations (ODEs, PDEs, and SDEs), optimization algorithms (e.g., Nelder-Mead), probability theory, and statistical inference, with practical experience applying these methods to econometrics, computational modeling, and large-scale data analysis for robust quantitative research.

Interests: Personal investing — realized 180% total returns since June 2022, maintaining an average annualized return of ~40% over three years through self-directed trading strategies.