Justin Steinman

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EDUCATION

University of Massachusetts, Amherst   September 2021 – May 2025
Bachelor of Science in Computer Science, Second Major in Pure Mathematics   *Amherst, MA*
- 4.0/4.0 GPA
- Founder and president of the Recreational Math Club

CS Courses: Data Structures, Algorithms, Machine Learning, Systems, Databases, Formal Language Theory
Math Courses: Calculus, Linear Algebra, Statistics, Analysis, Abstract Algebra, Topology, Differential Geometry

EXPERIENCE

Software Engineering Intern   June 2024 – August 2024
Genesis Therapeutics   *Burlingame, CA*
- Streamlined the ingest of chemical data, achieving a 10x performance boost when creating benchmarking datasets
- Created user interfaces with React for chemists to view and create drug targets without modifying the codebase
- Researched and implemented novel methods in molecular dynamics to efficiently predict drug potency

Instructor   June 2021 – June 2024
Deloitte (formerly Giant Machines)   *New York, NY*
- Led and prepared whole-class lessons in programming and methodology for high school and college students
- Collaborated with clients such as Citadel and Mastercard to prepare students for technical interviews
- Supported students individually with front-end and back-end development, resulting in an NPS above 80

Peer Tutor   February 2023 – December 2023
UMass Learning Resource Center   *Amherst, MA*
- Tutored students in math and computer science courses ranging from programming to analysis
- Participated in 8 rigorous trainings, covering topics such as pedagogy, diversity/inclusion, and informal assessment
- Served over 200 students, more than any other tutor, and received overwhelmingly positive feedback

Research Experience for Undergraduates (REU)   June 2023 – August 2023
University of Massachusetts, Amherst   *Amherst, MA*
- Designed graph theoretical methods to efficiently solve large linear systems for multibody simulations
- Implemented a cell simulation in C++ as a sandbox for numerical methods
- Optimized existing methods to be 50% more efficient on simulations with millions of cells
- Consolidated findings into a concise report to be referenced by mathematical biologists

Developer and Animator   December 2021 – June 2022
Primer Learning   *New York, NY*
- Created mathematical animations with C# and the Unity game engine ($\sim$ 22 minutes of animation)
- Provided feedback to enhance the visualization of mathematical concepts for 1.5 million subscribers
- Developed utilities for the custom library used for future animations (e.g., a tool to animate decision trees)

PROJECTS

nubDotDev, YouTube Channel | *Python, Manim, Git*   July 2021 – Present
- Create educational math and computer science videos with 1 million views
- Contribute to an open-source animation software community of over 350 developers
- Craft visualizations of complex mathematical fields like graph theory and fractal geometry

Computerized Proof of an Original Conjecture | *C, nauty, Git*   June 2023 – August 2023
- Constructed a proof with nauty, a graph automorphism library, for an original conjecture in affine geometry
- Designed an isomorph rejection algorithm using new results from the Discrete Mathematics journal
- Reduced algorithm runtime by over 60% using graph invariants and dynamic programming

TECHNICAL SKILLS

Languages: Java, Python, C/C++, C#, JavaScript, HTML/CSS, SQL, LaTeX, Wolfram
Libraries/Tools: React, Node.js, Flask, Bootstrap, MongoDB, Ray, Pandas, NumPy, K8s, Git, Linux