Samuel Lowe

(857) 231-6815 | lowe.s@northeastern.edu | 191 Boylston Street, Jamaica Plain, MA | linkedin.com/in/samclowe/
github.com/samlowe106 | Dates available: TBD

Education

Northeastern University – College of Science Boston, MA
Candidate for Master of Science in Applied Mathematics *Anticipated September 2023*

Northeastern University – Khoury College of Computer Sciences Boston, MA
Bachelor of Science in Computer Science and Mathematics *Jan. 2020 – June 2023*

- **Graduate Coursework:** Abstract Algebra, Number Theory in Function Fields
- **Undergraduate Coursework:** Complex Analysis, Number Theory, Directed Study (on Elliptic Curves), Partial Differential Equations
- **Activities & Societies:** Math Club (President), MathEMA (eBoard), Game Dev Club, NUPride

Technical Skills

Languages: Python, C#, Java, C/C++, TypeScript
Technologies: Git, Django, Bash, Docker, Kubernetes, Linux, Windows, Lean Prover, MonoGame, LaTeX

Experience

Software Engineering Co-op Boston, MA
BitSight Technologies *Jan. 2022 – Aug. 2022*

- Designed and prototyped Golang microservice to parallelize data processing
- Worked with SQL, Python, and Kubernetes to add features to back-end Django database

Logic and Computation Teaching Assistant Boston, MA
Northeastern University *Sept. 2021 – December 2021*

- Taught students how to do proofs and formalize them using Lean (the Microsoft proof assistant)
- Led labs and discussed topics on the Peano axioms, undecidability, and formal verification

Back-End Engineer Boston, MA (Remote)
Generate Product Development at Northeastern University *Jan. 2021 – May 2021*

- Created a wearable clicker to allow runners to alert police and trusted contacts if they feel unsafe
- Worked with a team of two other back-end engineers to integrate Google Maps, RapidSOS, Bluetooth, and MySQL into our Django back-end
- Led several weekly standups to discuss team progress, priorities, and resolve issues

Projects

Elliptic Curves and the Birch and Swinnerton-Dyer Conjecture January 2023 – May 2023

- Studied elliptic curves and the Birch and Swinnerton-Dyer conjecture with faculty advisor Prof. Evan Dummit as part of a capstone course
- Wrote a 20-page report on elliptic curves covering the group structure of points, the Nagell-Lutz theorem, Mazur's theorem, endomorphisms, complex multiplication, L-functions, and the Birch and Swinnerton-Dyer Conjecture

PaperScraper | *Python, Flask, Reddit API, Git* August 2016 – Present

- Developed and maintain a command-line program (and soon-to-be website) to allow users to easily download wallpapers from Reddit
- Integrated multiple webscraping techniques and APIs to retrieve, parse, and download images and data

nprcore.me | *Vue.js, JavaScript, Spotify API, Git* January 2021

- Pair-programmed a website to analyze users' music choices and compare them with NPR's recommended songs
- Designed an algorithm to calculate a user score, compare it against population data, and rate users' music tastes
- Recognized by official NPR Twitter accounts including All Things Considered and NPR Interns

Interests

Game Design and Development, Theoretical Mathematics, Teaching, Film, Reading