

ALEXANDER FISCHER

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Education

University of Massachusetts, Amherst, MA

2016–2020

- Double majoring in computer science and mathematics (concentration: pure math)
- GPA: 4.0
- **Relevant Computer Science Coursework**—Computer Systems Principles (ongoing), Reasoning Under Uncertainty (ongoing), Introduction to Computer Science, Honors Programming with Data Structures
- **Relevant Mathematics Coursework**—Introduction to Mathematical Cryptography (ongoing), Discrete Structures (ongoing), Statistics, Multivariable Calculus, Linear Algebra, Differential Equations, Modern Analysis, Complex Variables

Skills

- **Programming Languages**—Java (including Android), HTML/CSS/Javascript, C
- **Technologies**—Linux/Unix, LaTeX, Git, Eclipse

Experience

Side Projects

- **Chamberwell**—Android game published on Google Play where one has to tilt the screen to move balls into the correct chambers
- **Mandelbrot set renderer**—renders images of the Mandelbrot set with smooth coloring and multithreading
- **Automata renderer**—renders Wolfram's elementary cellular automata and Conway's Game of Life
- **SPIRE autoenroller**—continuously checks if a class is open then automatically enrolls one in it if so
- **Franklin High School ID search**—website and chrome extension that allows Franklin High School students to search for their classmates' email addresses by name
- See personal website (<http://alexfischer.me>) for more detailed information on side projects

Hackathons

- **HackHolyoke 2016**—won best hardware hack for prototype of a bike lock that could be unlocked with a phone using Bluetooth low energy
- **HackUMass 2016**—used Leap Motion, a Raspberry Pi and servo motors to create a game where a physical maze is controlled by rotating one's hand to move a ball through the maze. Project was selected as one of Devpost's projects of the week and included in their newsletter

Undergraduate Teaching Assistant

Spring 2017

- Undergraduate TA for computer science class 'Programming with Data Structures'

Town of Franklin IT Department, Franklin, MA

2014–2016

- Volunteered to set up computer systems in new high school while it was under construction (summer 2014)
- Continued to volunteer with Franklin High School's IT department thereafter

Honors/Awards

- National Merit Scholar: received corporate scholarship from MMC corporation, 2016
- Member of Commonwealth Honors College at University of Massachusetts
- Finished second in University of Massachusetts ACM's annual programming contest, 2016
- Finished second in 2017 Jacob-Cohen-Killam Mathematics Competition—competition for freshman and sophomores at University of Massachusetts, Amherst