ALEXANDER FISCHER

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Education

University of Massachusetts, Amherst, MA

2016-2020

- Double majoring in computer science and mathematics (concentration: pure math)
- Expected graduation year is 2020

University of Colorado, Colorado Springs, CO

2014-2016

- Completed online mathematics classes while in high school
- GPA: 3.91

Franklin High School, Franklin, MA

2012-2016

- Graduated top 10 in class with a GPA of 3.9
- National Merit Scholar Finalist
- Rensselaer Medal recipient, 2015
- National AP Scholar, 2015 and 2016

Experience

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

Side Projects

- 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
- Franklin High School ID search—website and chrome extension that allow 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

Town of Franklin IT Department, Franklin, MA

2014–2016

- Set up computer systems in the new high school that was under construction (summer 2015)
- Continued to volunteer with Franklin High School's IT department thereafter

Skills

- Most familiar programming language is Java (including some Android familiarity), but also familiar with HTML/CSS/JS and working knowledge of C and Python
- Most familiar with Linux, but also familiar with Windows and Mac OS X
- Familiar with Git and GitHub

Classes Taken/To Be Taken

Computer Science

- Introduction to Computer Science, via AP class in high school
- Currently enrolled in Honors Programming with Data Structures
- Expected Spring 2017 classes: Computer Systems Principles, Reasoning Under Uncertainty

Mathematics

- Calculus I, Calculus II, Statistics (via AP classes in high school), Multivariate Calculus, Linear Algebra, Differential Equations, Modern Analysis (at University of Colorado, Colorado Springs online during high school)
- Currently enrolled in Complex Variables and Putnam Exam Preparation seminar
- Expected Spring 2017 classes: Discrete Structures, Statistical Physics

Other

Currently enrolled in Honors Introduction to Ethics and Honors Ideas that Change the World