

Jacob Shapiro

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Education

Amherst College, Amherst, MA

August 2018 - May 2022

- Bachelor of Arts in Computer Science
- GPA: 3.98/4.00

Experience

Microsoft, Redmond, WA

Software Engineer, Azure-Core OneFleet Efficiency

August 2022 - Present

- Design and implement workflow to increase efficiency of repairing faulty servers
- Create repair policies and procedures to keep faulty but functional servers in production
- Reduce downtime of targeted Azure servers by 90%
- Manage DRI workstream to respond to outages and failures in the service

Software Engineer Intern

June 2021-August 2021

- Modeled and measured the efficiency of fail-in-place servers in Azure allocation simulator
- Created tools used by Research and Compute teams to measure and quantify impact of projects

Oracle, Redwood Shores, CA

May 2020-August 2020

Software Engineer Intern

- Designed and developed machine learning models implementing natural language processing to translate informal user input into formal Elastic Search queries for Ask Oracle platform

Amherst College Department of Computer Science, Amherst, MA

March 2019-May 2022

Computer Science Teaching Assistant, McGeoch Fellow

- As McGeoch Fellow, worked with Data Structures (Fall 2021) and Computer Systems (Fall 2020) professors to prepare and grade projects, assist in lab sessions, respond to student questions about course material over slack, and provide academic support for 40+ students
- As teaching assistant for Introduction to Computer Science, assist 20 students in lab sessions and an average of 10 students per week during office-hours

Computer Science Peer-Tutor

- Selected by department chair to tutor individual students in introductory-level computer science
- Developed individually tailored tools and methods to reinforce materials taught in class

Publications

[HyraX: Fail-in-Place Operations in Cloud Platforms](#)

- Presented at USENIX OSDI 2023
- Foundational research paper driving Microsoft Azure's Fail-In-Place efficiency efforts

Relevant Computer Science Education

- Languages:
 - Proficient: Java, Python, C#, Kusto Query Language, Powershell
 - Familiar: Haskell, C, SQL, Prolog
- Coursework: Data Structures, Algorithms, Machine Learning, Computer Systems, Computer Security, Computer Architecture, Networks, Artificial Intelligence, Programming Language Paradigms, Object Oriented Programming I & II, Probability and Computing, Multi-Variable Calculus, Linear Algebra, Statistics

Volunteering and Activities

Amherst College Hillel

September 2018- May 2022

President (February 2021-August 2021)

- Organized and lead club operations and manage budget of approximately \$10,000 dollars

Executive Board Member (September 2018-Present)

- Lead board members and managed creating and executing goals and strategies
- Organized weekly shabbat dinners for 60 people and 3-4 holiday events per semester for Amherst College community