Abraham Safdie

Computer Science

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EDUCATION

Master of Science, Computer Science | June 2025
University of Oregon, Eugene, OR
Concentration in Data Science and ML/AI
Accelerated Masters Program

Bachelor of Science, Computer Science | June 2024
University of Oregon, Eugene, OR
Concentration in Systems and Networks
GPA: 3.92; Honors: Magna Cum Laude

RELEVANT COURSEWORK

Data Structures & Algorithms, Software Engineering, C/C++, Operating Systems, Networks, Architecture, Computer and Network Security, System Admin, Database Theory, Artificial Intelligence, Machine Learning, Modeling & Simulation, Distributed Systems, Graduate Algorithms, Graduate Data Science, Statistics, Linear Algebra, Calculus, Discrete Math

TECHNICAL SKILLS

Command-Line Interface, System Admin, OSI model, Linux, Docker, Unity, Blender, Git, DBMS, PyTorch/Sci-kit Learn

LANGUAGES

Python, Ruby/Ruby on Rails, C, C++, C#, Julia, JavaScript, HTML, CSS, SQL, R, Bash Scripting

CERTIFICATION

TestOut Linux Pro (Proficiency in System Admin)

EXPERIENCE

University of Oregon | Eugene, OR

Graduate Teaching Assistant - Operating Systems | 2024 - 2025
- Taught Operating Systems course in lab environment to 30 students
- Assisted design of the curriculum; created lab assignments; enhanced pre-existing homework assignments
- Conducted scheduled office hours to facilitate individual learning of OS concepts for undergraduates

Graduate Teaching Assistant - Computer Organization and Programming in C/C++ | 2025
- Taught Computer Organization and Programming in C/C++ in lab environment to 90 students; graded homework
- Conducted scheduled office hours to facilitate individual learning for undergraduates; topics included: multithreading, programming in assembly and C/C++, Makefiles, and git

Undergraduate Lab Assistant - Operating Systems | 2024
- Facilitated student learning of Operating Systems course; topics included: multiprocessing, multithreading, shell design/development, and inter-process communication (IPC)
- Mentored 50 undergraduate students to develop, debug, and complete course coding assignments in C
- Designed and presented schematics to improve students visual comprehension of complex OS concepts

SELECTED PERSONAL PROJECTS

Multithreaded L-Store Database (Python) | October 2024
- Designed a multithreaded columnar database, capable of storing and managing millions of records
- Supported basic SQL queries and optimized data retrieval using a page caching mechanism
- Ensured ACID compliance through strict two-phase locking for concurrency control

Multithreaded Bank Manager (C) | November 2023
- Developed a multithreaded banking system; supports parallel transactions, deadlock-free, maintains consistency