

Brennan Duncan

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EDUCATION

Brigham Young University, College of Physical and Mathematical Sciences

May 2026

BACHELOR OF SCIENCE, COMPUTER SCIENCE

Provo, Utah

- GPA: 3.5
- Emphasis in Computer Security
- Relevant Coursework: Software Design, Discrete mathematics, Computer Security, Operating Systems
- Ongoing research under Dr. Daniel Zappala in security key backups

EXPERIENCE

Brigham Young University, Human Computer Interaction

May 2024 - Present

Research Assistant under Dr. Daniel Zappala

Provo, Utah

- Lead a team of 5 other undergraduates researching a proof of concept and implementation of backups for security keys based on Yubico's backup proposal
- Wrote over 300 lines of Rust code, works with OpenSK's implementation of security keys to allow for backup information
- Translated Yubico's pseudocode into an actual implementation of cryptographic algorithms into Rust
- Designed a poster for the project and presented it at USENIX security 2025
- All pieces complete, waiting on IRB approval for user study

Brigham Young University, Computer Science Department

Sep 2024 - Apr 2025

Teaching Assistant: Intro to computer security and privacy

Provo, Utah

- Authored an encrypted server and client project using AES-GCM methods in Rust
- Designed an automated grading solution for encrypted server and client project
- Enhanced experience in explaining complex cryptographic topics and computer security/privacy topics to 40 students in the class
- Taught the basics of Rust to a CS Security oriented group, topics included: variable bindings, types, functions, error control, testing, and traits

Harold B. Lee Library, Brigham Young University

Jan 2024 - Apr 2024

Computer Technician

Provo, Utah

- Configured and oversaw over 200 computers and facilitated resolution of over 120 employee tech related issues
- Documented and tracked over 100 new employee computers, and facilitated 100% employee satisfaction

SKILLS

- C++, Rust (Experienced)
- Linux, Bash, X86 and Y86 assembly, CNO developer (Experienced)
- Python, C, C#, HTML, CSS (Some Proficiency)
- Github, RustRover, Visual Studio, Active Directory, Jamf
- learning Risc-V

PROJECTS

- Wrote a Datalog interpreter in C++
- Developed a standalone chess application in Java
- Learning and developing on XV6, a teaching operating system