

Emma Reuter

Austin, TX 78705

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EDUCATION

The University of Texas at Austin , Austin, TX	05/2022
<i>Bachelor of Science in Computer Science</i>	GPA 3.2

SKILLS

Technical Skills: Data Structures, Algorithms, Systems programming

Languages: C, React, Python

Classes: Multicore operating systems, Software Engineering, Probability, Statistics, Differential equations

Activities: 2nd place Collegiate Penetration Testing Competition New England, 2nd Southwest CCDC, Best Kernel challenge write up winner UIUCTF

EXPERIENCE

Research and Development at Charles Schwab San Francisco, Ca	06/2021-08/2021
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Researched Container Security with the R&D team

- Researched container security threat landscape.
- Simulated different container attacks.

Distributed File Systems research, Austin, Tx

05/2020-07/2020

Assisting with distributed file systems research

- Wrote a multi-threaded fuzzer to test file system in C.
- Streamlined installation process by documenting kernel module and non-volatile memory configuration.

Teaching Assistant, Austin, Tx

01/2020-05/2020

- Guided students through the development of multicore operating systems.
- Answered students' questions during office hours and explained systems concepts.

PROJECTS

Barrelfish

- Gained a strong understanding of the microkernel architecture by developing functionality for the Barrelfish Research OS. Implemented capabilities-based access control system, remote procedure calls, and cross-core communication.

Hike Advisor

- Hike Advisor is a site to inform people about the available hiking trails and local wildlife in their area. I developed the model views, pagination, filtering, and sorting for the front end of the website.

ACTIVITIES & LEADERSHIP

Information & Security Systems Society,

04/2020- Current

Engineering Officer

- Wrote problems for weekly capture-the-flag security competitions.
- Mentored students by guiding them through capture the flags competitions and answering security questions
- Give talks explaining computer networking and penetration testing.