ANNA FRITZ

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EDUCATION

University of Kansas, Lawrence KS
PhD in Computer Science Expected Spring 2021

University of Kansas, Lawrence KS
Masters of Science in Computer Science Earned Spring 2021, Honors
GPA: 3.91

University of Kansas, Lawrence KS
Bachelor of Science in Chemical Engineering Earned May 2019
GPA: 3.83

RESEARCH INTERESTS

Currently interested in formal verification of remote systems. I want to help our team ensure two communicating peers can establish trust before sharing information across the network. With the help of theorem proving tools like Coq, we are on our way to making this happen!

EXPERIENCE

Research Assistant | University of Kansas | Lawrence, KS   Spring 2018 – present
- Performed formal language verification using Coq
- Developed a formal understanding of remote attestation and network communications
- Collaborated to design systems with provably secure properties
- Participated in a 5-person seminar to understand and formally verify a Galois connection
- PI: Dr. Perry Alexander, KU ITTC

System Engineering Intern | Honeywell FM&T | Kansas City, MO   Summer 2021
- Researched and reported on data mining techniques such as Principal Component Analysis with the goal of using such techniques to categorize system components
- Gain familiarity with tools such as Docker to run containers that detected malicious web pages
- Tested hardware components to ensure they behaved as expected

Make It Happen Conference Co-director | University of Kansas | Lawrence, KS   Spring 2019
- Co-organized a STEM outreach event focused on engaging middle school girls in STEM
- 70+ attendants participated in activities designed to expose engineering disciplines
- Planned event logistics including the schedule of events and accommodating guest speakers

LEADERSHIP

Seminar Assistant | University of Kansas Honors Program   Fall 2016, Fall 2017
- Connected students to volunteer and outreach opportunities on campus

Student Ambassador | University of Kansas School of Engineering   Fall 2017 - Spring 2019
- Guided tours to prospective students explaining the School of Engineering

SELF Engineering Leadership Fellowship | University of Kansas   Fall 2018 – Spring 2019
- Distinguished fellowship that nurtures engineering student into industry leaders

TECHNICAL SKILLS

- C++, C
- Haskell
- Knowledge of Compilers and Operating Systems
- Python
- Jupyter Notebooks
- Coq
- Technical reporting

PRESENTATIONS

1. HotSoS 2020 Poster Presentation titled "A Type Dependent Policy Language"

FAVORITE COURSES

Modern Algebra – This course opened my eyes to the magic of algebra. Learning cryptographic algorithms and proofs over sets of numbers was unlike anything I'd ever learned before.

Compilers – This was my first introduction to the bones of computers. The challenge of learning such a vast and intricate topic had me hooked on computer science.