Sarah Johanknecht

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EDUCATION

Michigan State University   **August 2016-May 2020**
Bachelor of Science in Computer Science, Minor in Cognitive Science   East Lansing, MI
Honors College. GPA: 3.89 / Major GPA: 4.0

RELEVANT COURSEWORK

Completed

Intro to Programming I & II, Discrete Structures, Algorithms and Data Structures, Software Design, Computer Architecture, & Operating Systems

Planned

Software Engineering, Computer Networks, Database Systems, & Algorithm Engineering

SKILLS

Experienced

C, C++, Java, Python, Visual Studio, Git, GitHub

Familiar

C#, WPF/XAML, Assembly, Unix, Vim

RELEVANT EXPERIENCE

Qualcomm Inc.   **May 2018-August 2018**
QCT Software Engineering Intern: (https://www.qualcomm.com/)   San Diego, CA

- Implemented a benchmark testing suite for an internal Qualcomm chip with the RISC-V ISA in C.
- Developed an API interface layer with support for threading, concurrency control, scheduling, interrupts and thread local storage in C between a Qualcomm internal RTOS and a RISC-V port of FreeRTOS to allow Qualcomm's legacy software to run on RISC-V processors. Managed project using GitHub.

TechSmith Corporation   **May 2017-August 2017**
Software Engineering Intern: (https://www.techsmith.com/)   Okemos, MI

- Refactored a video testing harness for testing video recording in TechSmith products SnagIt and Camtasia using C++ and implemented an algorithm for testing recordings for audio/video sync issues.
- Utilized Agile development ideology to develop "Share" outputs for SnagIt to various outside applications using C# and .NET while working with Microsoft and other APIs, as well as WPF and XAML for User Interface design.

Michigan State University Department of Computer Science   **August 2018 – Present**
Algorithms & Data Structures (CSE 331) Teaching Assistant   East Lansing, MI

- Assisted undergraduate computer science students with their understanding of the Algorithms and Data Structures concepts in addition to designing and grading projects and exams.

Michigan State University Digital Evolution Lab   **August 2016 – May 2018**
Professorial Research Assistant: (http://devolab.msu.edu/)   East Lansing, MI

- Simulated various evolutionary environments using C++ and Empirical software, used Python to write scripts for data analysis, and worked intensely with MSU's high performance computer in Linux to run experiments.
- Received first place for my research at Michigan State's University Undergraduate Research & Arts Forum.

ACTIVITIES

- Michigan State's Women in Computing Club, 2016 - Present
  - Leadership Position: Outreach Coordinator, 2017-2018 ; Lean-In Chair, 2018-Present
- Michigan State Honors Students Actively Recruiting (H-STAR), 2016 - Present
  - Leadership Position: Student Leadership Team, Alumni Distinguished Scholarship Event Student Leader
- Michigan State University Women in Engineering Connect Mentor, 2017 - Present
- Michigan State University Girls Who Code Club Facilitator, 2018-Present
- Phi Sigma Pi National Honors Fraternity Beta Sigma Chapter Brother, 2018 – Present