

SARAH JOHANKNECHT

Software Engineer

EDUCATION

MICHIGAN STATE UNIVERSITY

Bachelor of Science, Computer Science
Minors in Cognitive Science & Linguistics
Honors College, Dean's List 2016-2019
GPA: 3.92, Major GPA: 4.0
Expected Graduation: May 2020

COURSEWORK

Algorithms & Data Structures
Object-Oriented Software Design
Computer Architecture & Organization
Operating Systems
Computer Networks
Algorithm Engineering
Database Systems
Web Application Development
Big Data Analysis
Introduction to Artificial Intelligence

SKILLS

Python | Java | C++ | C | HTML/CSS
PHP | C# | Git | Visual Studio | Linux

EXTRACURRICULARS

MSU Women in Computing

President: 2019- Present
Lean-In Chair: 2018-2019
Outreach Coordinator: 2017-2018

MSU Women in Engineering

Connect Mentor: 2018 - Present

Girls Who Code

Club Facilitator: 2018- Present

Rewriting the Code

Fellow: 2019 - Present

Help A Willing Kid (HAWK) Foundation

Tutor: 2017 - Present

CONTACT

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sarahjohanknecht.github.io
www.linkedin.com/in/sarahjohanknecht/

WORK EXPERIENCE

LINKEDIN

May 2019-Present

Software Engineer Intern | Systems Framework | Sunnyvale, CA

- Implemented best practice asynchronous API examples in Java for Rest.Li, LinkedIn's internal REST Framework.
- Developed a performance test plan for Rest.Li resources to evaluate statistics such as latency, CPU usage, memory usage, etc.
- Collaborated with client-facing teams to migrate their Rest.Li API's from synchronous business logic to asynchronous business logic, improving site speed performance by up to 35%.
- Expanded upon existing documentation and training resources of proper Rest.Li asynchronous usage to increase developer productivity.

QUALCOMM

May 2018-August 2018

Software Engineer Intern | Core Architecture | San Diego, CA

- Adapted and 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

May 2017-August 2017

Software Engineer Intern | Video Improvements | Okemos, MI

- Refactored a video testing harness for testing video recording in TechSmith products SnagIt and Camtasia using C++.
- Implemented an algorithm for testing recordings for audio/video sync issues & automated the testing process through command line scripting, saving QA Engineers one hour per test.
- 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.

MSU COMPUTER SCIENCE

August 2018-Present

Teaching Assistant | Algorithms & Data Structures | East Lansing, MI

- Assisted undergraduate Computer Science students with their understanding of the Algorithms and Data Structures concepts through online Piazza forums & weekly office hours.
- Designed & graded weekly programming projects.

MSU DEVOLAB

August 2016-May 2018

Research Assistant | Computational Evolution | 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.