

# Jacob Burley

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## Education

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**University of Michigan – Ann Arbor**

**Dec 2020**

*Bachelor of Science in Engineering in Computer Science*

**GPA: 3.5 / 4.0**

### Relevant Courses:

- Advanced Operating Systems, Operating Systems, Machine Learning, Web Systems, Computer Networks, Game Design and Development, Foundations of Computer Science, Data Structures and Algorithms

**Awards and Honors:** Deans List Fall 2018, Fall 2019

## Work Experience

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### Goldman Sachs

Software Engineering Intern

**Jul 2020 – Aug 2020**

- Provisioned data warehouses for on the data lake architecture that would be ingestion targets for Spark Jobs.
- Used Spark and HDFS to aggregate trade data and improve runtime and analytics for processes operating on billions of rows of data.
- Created presentations to effectively demonstrate progress on projects to senior management.

### Western Digital

Software Engineering Intern

**Jan 2019 - Aug 2019**

- Developed and improved CLI tools to diagnose failing storage devices: integrated standard tests into executables, added support for targeting devices by drive path, categorized output logs by drive model.
- Added support to internal tools for the FreeBSD operating system and added support for additional drive vendors to FreeBSD's camcontrol module.
- Improved Drive Log Decoding tools for NVMe devices by increasing ease of extensibility, as well as adding or improving support for output formats such as plaintext, HTML, and JSON.
- Updated automation scripts to test our drive maintenance tools more thoroughly, and to reflect additional features added.
- Restructured Jenkins pipeline to generate documentation during builds, decrease build time for projects integrating multiple repositories, and automate artifact generation for documentation during builds.

### Drake Enterprises

IT Intern

**Jun 2018 - Aug 2018**

- Created reports using Power BI to measure performance metrics for the Maintenance department, including customer satisfaction, and downtime for unplanned maintenance.

## Skills

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**C/ C++:** Glib, Boost, LLVM, CMake

**Python:** PyTorch, SK-learn, Flask

**Java:** Spark, Hadoop, Maven

**JavaScript:** React, React Native, Node, Redux

**Tools:** Git, SVN, Jenkins, BASH, Firebase

**Other:** Agile Development, Jira, Confluence

## Project Experience

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### Mobile Fitness App

**May 2020 - Present**

Worked in a partnership to develop cross platform fitness application using React Native, Redux and Firebase. I was responsible for designing UI components, integrating the state management tools across the app, and integrating Firebase with the application.

### Better Assertion Generation for Non-Volatile Memory

**Jan 2020 – May 2020**

Worked in a team of four to develop an LLVM pass that was able to automatically insert assembly instructions that would insure ordering and durability for store instructions to non-volatile memory.

## Activities

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### Triangle Fraternity: Vice President of Finance

**Nov 2019 - Present**

Designed and proposed a budget exceeding \$40,000 dollars to distribute funds amongst more than 20 different chair positions within the Fraternity. Managed the activities of the grant writing, collections, accounts payable, and fundraising chairs.