# John A. Speicher

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## **Education**

James Madison University, Bachelor of Science (BS)

May 2024

Major: Computer Science | Minor: Robotics

## **Relevant Skills**

- C, Java, Python, Ruby, Rust, HTML, Haskell, SQL, JavaScript
- Software/ Web Development
- Program Analysis
- Version Control Ex: GitHub
- Parallel Programming (OpenMP, MPI)
- Leadership

# **Relevant Projects**

Portfolio Website - Google Cloud Platform

https://storage.googleapis.com/john\_portfolio\_bucket/ppp-J-Speicher/index.html

#### Parallelized Particle Simulator

- Develop multiple algorithms for performance optimization in a pre-existing particle simulator
- Improved particle simulator runtime/ efficiency by 120% with spatial hashing algorithm
- My quadtree algorithm was beaten, but it can be reimplemented in a better-suited environment

#### Autonomous Drone Delivery Project

- Coordinate with a group of five to implement an autonomous drone delivery service
- Test drone designs, maintain a budget, and develop facial recognition for customer recognition

#### Movie Review Website

- Create an appealing, interactive website in HTML, CSS, and JavaScript for viewing film content
- Utilize free APIs to randomly generate movie suggestions and available streaming services

#### Distributed Hash Table

Utilize pthreads and MPI to create a distributed hash table for storing/ retrieving values via remote
procedure calls to a server. Embraces concept of transparency with "hidden" calls to server.

# Custom Spreadsheet

- Create, store, and access custom data types in an interactive spreadsheet made from scratch
- Learn Ruby and how to organize and iterate through flexible data types.

## Network Connection Protocol

Simulate a simplified DHCP protocol between client and server IP addresses with a server

#### **Job Experience**

Sandwich Artist - Jimmy Johns

OCT 2023 - FEB 2024

Coordinate with a team to satisfy customers in a fast-paced environment

# Warehouse Associate - Amazon

JUNE 2023 - AUG 2023

Sort packages accurately according to their next listed destinations with minimal supervision

## Cashier - Harris Teeter

MAY 2019 - JULY 2021

Perform customer service while multitasking with cash register or assisting co-workers