

## Experience

- July '19 - August '20 **SSIMWAVE**, Software Developer, DevOps | *Python, Javascript, Kubernetes, Docker, Bazel*
- Build kubernetes applications with authentication, usage tracking, and cloud exposure
  - Developed deployment platform to get software instances running for customers
  - Provided support for multiple cloud platforms (AWS, GCE) for deployment of the kubernetes engine
- Sept '18 - June '19 **SSIMWAVE**, Software Developer, DevOps | *Python, C++, Bash, Unix/Linux Environments*
- Maintained internal tooling for isolated test environment deployment
  - Worked on large scale, production build systems
  - Worked on stability of CI pipeline in use by all of engineering
- June '18 - August '18 **SSIMWAVE**, Software Developer, Data Streaming | *C++, Java, Node.js, SQL, Apache Kafka*
- Created REST APIs in Java fed by event streaming big data architecture (Kafka)
  - Modified Node.js middleware to use new REST API
  - Did Rapid prototype development in C++ and Python to test distributed column store databases

## Projects

- March '20 - Sept '20 **Stock Matcher** | *C++, Parallel Processing, CPU Optimization, Python, Flask, Javascript, Redis*
- Web scraped thousands of rows of stock data with Python
  - Wrote proprietary algorithms which accurately predicts outcomes using historical data
  - Optimized code with cache friendly memory layout, multithreading and AVX2/AVX-512 vector instructions in intensive areas
  - Built web app with flask to query and display algorithm results with caching from Redis
  - Created a distributed computation network to shard jobs across multiple machines in AWS
- Dec '19 - Feb '20 **GIF Message** | *Python, Image Processing, Open Source*
- Created an open source CLI to hide 128 byte messages in GIF images without changing the file size
  - Maintained the repository for 24 users from 8 countries

## Extra Curriculars

- Sept '17 - June '20 **JAMHacks**, Lead Hackathon Organizer, Sir John A. Macdonald S.S.
- Ran a team of 8 organizers, 30+ volunteers, 20+ teacher/parent supervisors
  - 200+ participants for 3 years
  - Brought in \$5000+ in sponsorships
- Sept '17 - June '20 **Computer Science Club**, President, Sir John A. Macdonald S.S.
- Ran a team of 8 instructors for a club of 100+ members for 3 years

## Education

- 2020 - 2025 **University of Waterloo**, Honours Computer Science (BCS), Co-op
- 2016 - 2020 **Sir John A. Macdonald Secondary School**, Waterloo, ON, (95% top 6 average)