CALDER WHITE

Computer Science / calderwhite1@gmail.com / Waterloo, Ontario

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

May '18 - June '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 20 users from 8 countries

Extra Curriculars

Sept '17 - June' 20   **JAMHacks,** Lead 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)