

Broday Walker

Accomplished software engineer with proficiency in parallel programming, optimization, and machine learning, who is passionate about using High-Performance Computing and GPGPU to solve complex problems.

EDUCATION

Midwestern State University, Wichita Falls, TX August 2020
Master of Science, Computer Science, *summa cum laude* GPA: 4.0/4.0
Graduate Man of the Year, 2020
Publication: Walker, B. & Johnson, T. (2019). NetLogo and GIS: A Powerful Combination. *Proceedings of 34th International Conference on Computers and Their Applications*, 58, 257-264.
Relevant Coursework: Deep Learning, GPU Programming, Advanced Software Engineering, Advanced Structures & Algorithms, Discrete Structures & Analysis, Advanced Computer Architecture

Midwestern State University, Wichita Falls, TX December 2016
Bachelor of Science, Criminal Justice & Political Science, *magna cum laude* GPA: 3.7/4.0

SKILLS & QUALIFICATIONS

Languages and Frameworks: C++, C, Java, Python, TensorFlow, GoLang

Parallel Programming: OpenCL, CUDA, MPI

Tools: Git, BitBucket, GitLab CI/CD, Docker, Linux (RHEL7/8, Ubuntu), Bash, Slurm, JUnit

General: Object-Oriented Programming, Parallel Programming, Test-Driven Development

EXPERIENCE

Lockheed Martin September 2020 - present
Software Engineer, Fort Worth, TX

- Develop and maintain internal software tools
- Parallelize computationally-expensive algorithms for execution on GPU using C++ and OpenCL
- Collaborate with research team to implement parallel algorithms
- Deliver tools for parsing and processing data

Midwestern State University January 2024 - present
Adjunct Instructor, Wichita Falls, TX

- Develop course syllabi, lesson plans, and instructional materials
- Assess student learning through assignments, exams, projects, and other evaluation methods
- Provide timely feedback and guidance to students to support their academic progress

National Center for Atmospheric Research May - August 2019
Summer Internships in Parallel Computational Sciences Intern, Boulder, CO

- Deployed file system performance metrics on Cheyenne, a 4032-node high-performance computer using XSEDE Metrics on Demand (XDMod)
- Installed and deployed job-level performance monitoring using SUPReMM, an XDMod module
- Automated daily performance data format conversion and ingestion into XDMod warehouse
- Converted Perl codebase to Python

Midwestern State University January 2018 - May 2020
Graduate Teaching Assistant, Wichita Falls, TX

- Instructed and tutored students in C++ and data structures
- Redesigned lab coursework and assignments
- Maintained grade books and feedback system for students