Matthew Whitlock

HPC Researcher

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Education

Ph.D. Program, Computer Science **August 2019**

Georgia Institute of Technology; Atlanta, GA

Bachelor of Science, Computer Engineering **May 2019**

Minor: Computer Science GPA: 3.87

Oklahoma State University; Stillwater, OK

Work Experience

HPC Resilience Intern **6/2017-Current**

Sandia National Labs; Livermore, CA

- Implement and verify features for a simulator of resilient-AMT runtimes
- Researched and optimized distributive collectives for an AMT runtime
- Published papers at IPDPS 2018 and Euro-Par 2019

High Performance Computing Class TA **8/2016-12/2016**

Oklahoma State University Math Department; Stillwater, OK

- Tested lessons/code for accuracy
- Mentored students with concepts and implementation
- Assisted with running Software Carpentry lessons for students and faculty

Residential Life Computer Consultant **10/2015-10/2017**

Oklahoma State University Residential Life; Stillwater, OK

- Repaired physical computer damage and replace parts
- Debugged and installed computer software
- Quarantined and removed malware, adware, and spyware

Areas of Expertise

- C++
- Java
- C
- Python
- MPI
- Legion (AMT parallelism)
- Git
- Verilog
- OpenMP/OpenACC

Relevant Activities

Founding President **4/2016-4/2018**

OSU Cyberinfrastructure Association

- Directed lessons on building and configuring a cluster computer
- Wrote and optimized 2nd place MPI competition code

Certified Instructor **7/2017**

Software Carpentry Foundation

- Volunteer teaching lessons on Bash, Git, Python, R, and more
- Completed three-day certification course in instructing these lessons

Conference Attendance

Misc

- Professional development at the International Conference for High Performance Computing **2016-2018**
- Workshop presenter at the International Parallel and Distributed Processing Symposium **2018**
- Panelist at the Coalition for Advancing Digital Research and Education **2017**