

PROFESSIONAL SUMMARY

- Software engineer with expertise in dynamic software analysis, tools development, and software integration seeking a position in High Performance Computing (HPC), distributed computing, or similar fields.
- 3½ years development experience in industry prior to returning to school to obtain a doctorate in CS.
- Theoretical and practical knowledge in dynamic software analysis and HPC, contribution to Clang/LLVM.

Software Development Skills

<i>Languages (proficient)</i>	C/C++, Python, Bash, L ^A T _E X
<i>Languages (prior experience)</i>	Racket, Go, HTML, PHP, Javascript, SQL, Octave/Matlab
<i>API</i>	C/C++ STL, OpenMP, OpenGL, GLPK,
<i>Others</i>	Clang/LLVM, ThreadSanitizer, Qt, Git, High Performance Computing

PROFESSIONAL EXPERIENCE

University of Utah August 2013 - present
Research Assistant Salt Lake City, UT

- Researching data race detection techniques and tools for large OpenMP applications in HPC environments.
- Member of PRUNERS project (<https://pruners.github.io>), by Lawrence Livermore National Laboratory.
- Building tools to identify data races in programs that involve paradigms of concurrency such as OpenMP.

IBM Thomas J. Watson Research Center May 2016 - August 2016
Summer Intern Yorktown Heights, NY

- Implemented OpenMP Tools and Debugging API (C/C++) in IBM Lightweight OpenMP Runtime.
- Received award for Best Poster Presentation at IPDPS'16.

Lawrence Livermore National Laboratory May/August 2014 - May/August 2015
Summer Intern Livermore, CA

- Researched low overhead data race detection techniques for large OpenMP applications.
- Published ACM Student Research Competition Poster and LLVM Workshop Paper at SC'14.
- Implemented porting of Clang/LLVM ThreadSanitizer data race checker for Power (PPC64) architectures.

Vitrociset S.p.A. February 2010 - June 2013
Software Developer Villaputzu (CA), Italy

- Developed command and control applications in military environments (GUI and backend).
- Developed real-time multithreading programs
- TCP/IP, UDP, shared memory for IPC, drivers development.

EDUCATION

Ph.D. in Computer Science – University of Utah, Salt Lake City, UT August 2013 - present

- Expected Graduation: August/September 2017
- Research Topic: High Performance Computing analysis tools, Clang/LLVM, and OpenMP
- Coursework: Compilers, Machine Learning, Formal Methods in System Design, Distributed Systems
- Teaching Assistant for CS 4230 Parallel Programming (2014)
- GPA: 4.0

Notable Projects (during coursework)

- Compilers: Implemented Python compiler in Racket
- Machine Learning: Built *maline*, an Android malware detection framework in Bash, Python, C/C++.
- Parallel Programming: Built Raspberry Pi cluster with 9 nodes.

M.S. in Computer Science – University of Rome “La Sapienza”, Italy September 2007 - December 2009

- Thesis Topic: Formal verification of parallel computing
- Coursework: Formal Verification, Software Engineer, Wireless Systems, Network and Data Security
- GPA: 3.9

B.S. in Computer Science – University of Cagliari, Italy September 2004 - July 2007

- Thesis Topic: Comparative analysis of Internet network vulnerability
- GPA: 3.8