

AlexanderBallmer

Computer Science

Address

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Evanston, IL 50202

Tel

(847)409-2122

Email

alexandersballmer@
gmail.com

Web & Git

github.com/gnu3ra
bitbucket.org/aballmer

Programming

C
C++
Java
Perl
Python
Ruby
Clojure
Bash

OS Preference

GNU/Linux ★★★★★
Unix (BSD) ★★★★★
Android ★★★★★
OSX ★★★★★
Windows ★★★★★

Other Skills

Project Collaboration
Gimp / Photoshop
Video Editing (Avid)
Electronics Work
Soldering
Model Aviation

Work Experience

Summer 2015

Argonne National Laboratory

Research Assistant

Ported a performance modeling tool used on the IBM Blue Gene/Q super-computer using PPC for use on the proposed x86 Intel supercomputer.

- Worked with low level hardware counters
- Ran field tests with real world applications
- Experience with C and low level debugging

2014-Present

Illinois Institute of Technology

Data Intensive Distributed Systems Laboratory

Student Assistant

Student Assistant and Member of IIT Student Cluster Competition Team. Competed at SC14, SC15.

- With teammates, built and configured a high-performance computer cluster designed to operate within strict power constraints.
- Collaborated with sponsors including Argonne National Laboratories, Nvidia, Intel, Mellanox, and HP.
- Profiled and analyzed hardware application performance.
- Specialized in running NAMD bioinformatics application, HPC Repast, file systems, and automation scripts during 48-hour, real-time, non-stop competition.

2014-Present

Youth Technology Corps

Intern/Counselor

Teach technology skills to high school students impacted by poverty, including Microsoft Registered Refurbishing, coding, and networking. Counselor for YTC summer camp in Troy, MO.

Publications

Ben Walters, Alex Ballmer, Andrei Dumitru, Adnan Haider, Serapheim Dimitropoulos, Ariel Young, William Scullin, Ben Allen, Ioan Raicu. **15 TFlops Haswell vs. 60 TFlops Knight Landing for HPC Scientific Computing Applications** *Student Cluster Competition (SCC), IEEE/ACM Supercomputing/SC 2015*

Kevin Brandstatter, Ben Walters, Alexander Ballmer, Adnan Haider, Andrei Dumitru, Serapheim Dimitropoulos, Ariel Young, William Scullin, Ben Allen, Ioan Raicu. **Experiences in Optimizing Cluster Performance For Scientific Applications: Controlling Configuration, Utilization, and Power Consumption** *GCASR 2015*

Kevin Brandstatter, Jason DiBabbo, Daniel Gordon, Ben Walters, Alex Ballmer, Lauren Ribordy, Ioan Raicu. **Delivering 3.5 Double Precision GFlops/Watt and 200Gb/sec Bi-Section Bandwidth with Intel Xeon Phi-based Cisco Servers** *Student Cluster Competition (SCC), IEEE/ACM Supercomputing/SC 2014*

Education

2018 (Expected)

Illinois Institute of Technology

Chicago, IL

Computer Science Major, Camras Scholar

2014

Evanston Township High School

Evanston, IL

With High Distinction, National Honor Society