

Michael A. Raymond

Education

- Masters in Computer Science, University of Minnesota (2007)
- Masters in Intelligence Studies, American Military University (2013)
- Carnegie Mellon University, Bachelors in Electrical & Computer Engineering / minor in CS (2000)

Work Experience

Hewlett Packard Enterprise (HPE) (2017 – present)

- I joined HPE in 2017 when HPE purchased SGI
- I am the team leader and lead developer HPE Message Passing Interface (MPI), as part of HPE's broader HPC software team. In addition to software development, this role includes influencing hardware design teams from multiple companies to develop communications hardware that better serves my customers.
- I do scalability (15,000+ hosts) and low level development with InfiniBand, OPA, and TCP/IP
- I assist marketing and sales with presentations and site visits
- I serve on the OpenSHMEM standards committee

Silicon Graphics Incorporated (SGI) (2001 - 2016)

- Team leader and primary developer for SGI's MPI high performance communication middleware product called MPT. I worked closely with customers to significantly increase its performance, fault tolerance, and scalability. I improved its scalability from running across a few thousand cores to running across over 220,000 cores. As the team leader I directed other engineers and coordinated with salesmen and customers to quickly meet their custom needs. (2007 - 2016)
- Designed, developed, and tested SGI's IRIX and Linux real-time operating system features and tool support. This involved restructuring OS components to scale to hundreds of cores. (2001 - 2005)

TimeSys Corporation (Intern & Part Time) (2000)

- Parallelized and redesigned TimeSys's real-time Linux kernel features and tool support

Army National Guard (1997 - present)(rank: Major)

- I am responsible for coordinating all information operations (Public Affairs, leader engagement, propaganda, deception, operational security, etc) across an Army division
- In 2012 – 2014 I commanded a 150-Soldier Field Artillery unit. With my staff I coordinated and lead training, logistical support, and partnership with other units.
- I deployed to Afghanistan 2011 - 2012 leading a military training team to mentor Afghani drill sergeants.
- I deployed to Iraq 2005 - 2007 conducting data management and analysis in a military intelligence team and then lead my battalion's public affairs team. I also acted as the

battalion commander's principle aide for his meetings with Iraqi generals and provincial leaders.

Skills

- Programming Languages: C, and some Python, Bash, C++
- Additional Skills: MPI, OpenSHMEM, Linux, InfiniBand, OmniPath, PMIx, JSON, REST
- Spoken Languages: Some Spanish, Dari / Farsi, and Arabic

Publications and Awards

- Patents in the areas of real-time storage area networks, networking software, process checkpoint-restart, and computer security
- I have had papers published as part of the OpenSHMEM conference series
- I have had articles published in *Fires Bulletin*, the professional publication of the U.S. field artillery

Status

- I have a DoD security clearance

Other Skills

- My principal hobby is multi-sump cave exploration, exploring complex underwater cave systems
- I am the editor or assistant editor for several caving-related publications
- I am an Assistant Scoutmaster with the Boy Scouts and regularly lead high adventure trips backpacking and paddling
- I enjoy traveling around the world and have visited 35 countries

Contact Info

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