# Milo Polte

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### **Work Experience**

2012-2015

Software Engineer and Manager/Tech Lead for WibiData, Inc (San Francisco).

- Fourth employee at a Big Data startup that grew to over forty.
- Survived one name change and three changes to the logo.
- Developed a platform for personalized applications on top of Hadoop, HBase, and Cassandra.
  - Our platform was used in production to deliver real-time product recommendations at two large retail customers, including holiday traffic.
- Project/tech lead on the effort to open source our software stack as the Kiji Project.
  - Broke down the effort into manageable, prioritized tasks for the team, delivering tested, first releases on schedule.
  - Kiji permitted us to better engage with our community with our own meet-ups, etc.
  - Tech lead on our earliest real time scoring component, Kiji Scoring that served our first real time recommendations.
- Transitioned to a dual technical-managerial role and managed ten direct reports during my tenure (a maximum of five at one time).
- Tech Lead/Manager of the platform team.
  - Responsible for the foundational layers of our stack.
  - Developed and help design internal build tools and scripts that reduced compile time and improved engineer productivity.

2011 (3 months)

Software Engineer internship at Panasas (Pittsburgh, PA).

 Project work towards instrumenting a FreeBSD kernel driver to implement QoS I/O scheduling in network attached storage devices for our parallel, distributed filesystem.

## **Technologies and Skills**

Python

My most recent projects have been in Python.

 Authored devtools and simple but helpful build components, e.g. packrat which we used internally at WibiData to cache and share build artifacts.

Java

I am experienced in coding distributed applications and map-reduce programs in Java. I've also used Scala but am less familiar with it.

Hadoop Stack

I've used a variety of technologies in the Hadoop ecosystem for model training and analytics: MapReduce, Yarn, HBase, Hive, Scalding, etc.

- Ported our ecosystem to different versions of the Cloudera Distribution of Hadoop and others, dealing with the bugs and changes along the way.
- Debugged numerous grungy issues in HBase ecosystem, such as ZooKeeper references, unblocking coworkers.

Scrum and hygienic coding

I was one of the first scrum masters at WibiData. Everyone does it differently.

- Led Sprint Planning for platform team, working with Product to prioritize tasks.
- Participated in our culture of code reviews, code style guides, etc.
- Owned the effort on writing our Python style guide.

#### **Education**

2006-2011

Masters Degree in Computer Science with partial work towards a PhD at Carnegie Mellon University (Pittsburgh, PA)

Advisor: Garth Gibson.

- Conducted research in CMU's Parallel Data Lab group under the programs of the Petascale Data Storage Institute and the Institute For Reliable High Performance Information Technology.
- Benchmarked Flash-based SSDs and evaluated cost efficiency of different hybrid configurations. Papers: http://www.pdl.cmu.edu/PDL-FTP/PDSI/simsa-pdsw08.pdf and http://www.pdl.cmu.edu/PDL-FTP/PDSI/Polte.pdf. Included work inside the Linux kernel.
- Collaborated with Los Alamos National Laboratory in the design and implementation of the Parallel Log-structured File System. Papers: http://institutes.lanl.gov/plfs/plfs.pdf and http://www.pdsi-scidac.org/events/PDSW09/resources/pdsw09-final9.pdf
- Investigated the design of parallel filesystems for HPC built on top of BigTable-like software. Paper: http://www.cs.cmu.edu/~svp/2009hotcloud-tablefs.pdf

1999-2005

Bachelor of Arts and Master of Engineering in Computer Science at Cornell University(Ithaca, NY)

Emphasis on courses in Distributed Systems, Networks, and Theory.

- Independent Research with Prof. Emin Gun Sirer (2001- 2002) Researched and developed an anonymizing peer-to-peer overlay network based on dining cryptographer nets called 'Herbivore'. White paper: http://www.cs.cornell.edu/People/egs/herbivore
- Cornell University Neurobiology Department (2005) Worked as a software engineer on an audio research and education workbench program called "Koé", providing functionality similar to professional synthesis applications, such as Reaktor.

#### Hobbies and Other Activities

- Hiking
- Vegetarian Cooking
- Losing at Dota
- My pet rabbit