# Aaron B. Todd

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8 Haviland St. Apt B Norwalk, CT 06854

#### Education

B.A. in Computer Science, Grinnell College

May 2011

M.S. in Computer Science, Indiana University Bloomington

May 2013

- Recieved as part of the PhD program, dropped out December 2013.
- Research focus on programming language theory and parallelism.

# Work Experience

## Bridgewater Associates, Westport, CT

Jan 2014 - Present

Senior Software Developer

- All work in Scala.
- Implemented features for economics research platform used by investment associates.
- Built optimization algorithms for trade generation pipeline in account management department.
- Designed and implemented domain specific language for algo developers to use.
- Mentored junior developers and instructed the team in functional programming concepts.

## Mozilla, Mountain View, CA

Summer 2013

Research Engineering Intern

- Worked on implementation of green thread runtime with workstealing scheduler.
- Implemented directly in Rust.

# Academic Experience

# PL Wonks

August 2013 - December 2013

Indiana University Bloomington

Research Assistant

- Adviser Ryan Newton.
- Researched deterministic parallel programming working in the Haskell.
- Work on a deterministic parallel merge sort published at PLDI 2014.

## Pervasive Technology Institute

August 2011 - May 2013

Indiana University Bloomington

Research Assistant

- Adviser Beth Plale.
- Implemented REST API abstracting over compute resources in Scala and Akka for the HathiTrust Research Center.

### **Publications**

Kuper, L., <u>Todd, A.</u>, Tobin-Hochstadt S., Newton, R.R. **Taming the Parallel Effect Zoo, Extensible Deterministic Parallelism with LVish** *PLDI* '14

Kowalczyk, S. T., Sun, Y., Peng, Z., Plale, B., <u>Todd, A.</u>, Auvil, L., Willis, C., Zeng, J., Pathirage, M., Liyanage, S., Ruan, G., Downie, J. S. **Big Data at Scale for Digital Humanities: An Architecture for the HathiTrust Research Center** Big Data Management, Technologies, and Applications, Wen-Chen Hu and Naima Kaabouch (eds) Book Chapter, IGI Global, 2013

# Computer Skills

<u>Languages:</u> Scala, Scheme, SQL, Rust, C, Haskell <u>Preferred Tools:</u> Linux, Git, Emacs, i3wm, IntelliJ