# Resume for Mark Wotton

# Skills

- Haskell, C, bash
- distributed systems design and implementation

# Work History

#### betterteam (Senior Software Engineer, Oct 2015-)

• initiated a Haskell web app for better team.com, including email processing, analytics integration with segment/intercom, and extensive health checks & monitoring. yesod/postgresql/ghcjs

### meanpath/leadstage (CTO, Oct 2013-Oct 2015)

- wrote a crawler that collected the front page from 160 million domains daily, engineered a system to avoid crushing the domain servers involved.
- Haskell stack + C zeromq agent to distribute domains for fetching. Sqlite backend for temporary storage + elasticsearch for search.
- under the leadstage brand, took mean path crawl results and enriched them with social media info, lead scoring, Alexa rank, IP sharing information etc.

The Haxl framework enabled runtime selection of source information and clear & efficient compound queries.

- Other meanpath/leadstage projects
  - domain extractor (very fast stream filter for finding domain names in data)
  - arin crawler
  - fault-tolerant elasticsearch ingester
  - parallelised SMTP query engine
  - elasticsearch alternative (directly querying sqlite database in parallel)

#### ninjablocks (Co-founder/CTO, 2012)

• IoT startup - Haskell backend, C on the device, communication through zeromq.

### X-Men Origins: Wolverine movie (solder monkey, 2007)

• soldered the blinkenlights for Wolverine's adamantium injection scene

#### Doha Asian Games ceremonies (programmer, 2006-2007)

• Implemented a simple operating system for the PIC chip on a custom board, allowing it to be programmed from a handheld device for complex lighting tasks

# **OSS** patches

- yesod, intero, mandrill binding, slack binding, sqlite3-lz4

### selection of OSS solo projects

- robots.txt library <a href="http://github.com/meanpath/robots">http://github.com/meanpath/robots</a>
- dnsmadeeasy binding for Haskell <a href="https://github.com/mwotton/dnsmadeeasy">https://github.com/mwotton/dnsmadeeasy</a>
- dustme: selecta reimplementation in Haskell <a href="https://github.com/mwotton/dustme">https://github.com/mwotton/dustme</a>
- binding to segment.com API <a href="https://github.com/mwotton/segment-api">https://github.com/mwotton/segment-api</a>
- lz4 binding <a href="https://github.com/mwotton/lz4hs">https://github.com/mwotton/lz4hs</a>
- Hubris: Haskell/Ruby binding <a href="https://github.com/mwotton/Hubris">https://github.com/mwotton/Hubris</a>
- hscmph CMPH binding for computing perfect hashes <a href="https://github.com/mwotton/hscmph">https://github.com/mwotton/hscmph</a>>

### Other employers

Bigcommerce (2013), Upguard (2012-2013), Key Options (2010-2012), Westfield (2009-2010), Optus

### Education

BSc (Hons) University of Sydney

#### Contact

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