# Resume for Mark Wotton

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### Skills

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

### Education

• BSc (Hons) University of Sydney

# Work History

### betterteam (Senior Software Engineer)

• initiated a Haskell web app for betterteam.com, including email processing, analytics integration with segment/intercom, and extensive healthchecks & monitoring. Stack is yesod and postgresql with a ghcjs frontend.

#### meanpath/leadstage (CTO)

- wrote a crawler that could collect the front page from 160 million domains daily, and engineered a system to avoid crushing the domain servers involved.
- stack was Haskell with a single zeromq agent written in C to distribute domains for fetching. Backend was sqlite for temporary storage + elasticsearch for search.
- under the leadstage brand, I took the results from the meanpath crawl and enriched them with various information (social media info, lead scoring, Alexa rank, IP sharing information etc).
  - I used the Haxl framework to enable runtime selection of source information, and to process dependent queries clearly and efficiently.
- Other meanpath/leadstage projects

- OSS robots.txt parsing library (https://hackage.haskell.org/package/robots-txt)
- arin crawler
- domain extractor (very fast stream filter for finding domain names in data)
- fault-tolerant elasticsearch ingester
- parallelised SMTP query engine
- elasticsearch alternative (directly querying sqlite database in parallel)

### ninjablocks (Co-founder/CTO)

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

### OSS work

- numerous patches (yesod, intero, mandrill binding, slack binding, sqlite3-lz4)
- selection of solo projects
  - dnsmadeeasy binding for Haskell https://github.com/mwotton/dnsmadeeasy
  - dustme: selecta reimplementation in Haskell https://github.com/mwotton/dustme
  - unicode flattener (port of unidecode) https://github.com/mwotton/unidecode
  - binding to segment.com API https://github.com/mwotton/segment-api
  - lz4 binding https://github.com/mwotton/lz4hs
  - Hubris: Haskell/Ruby binding https://github.com/mwotton/Hubris
  - hscmph CMPH binding for computing perfect hashes https://github.com/mwotton/hscmph

# Other employers

- Bigcommerce
- Westfield
- Optus
- Upguard