Resume for Mark Wotton

Skills

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

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.

Doha Asian Games ceremonies (programmer)

• 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.

Other employers

Bigcommerce, Westfield, Optus, Upguard

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
 - 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

Contact

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Education

• BSc (Hons) University of Sydney