343 262 3363 | sandy@sandymaguire.me | Senior Software Engineer

SANDY MAGUIRE

"Impassioned by big ideas and systematic self-iteration."

SUMMARY OF SKILLS

Programming Experience

- C++ (decade)
- C#, JavaScript, Lua, PHP, Python (5 years)
- Haskell (4 years)

WORK EXPERIENCE

Senior Software Engineer » Takt September 2016 → January 2018

- Led a team of four to reimplement a core subcomponent of the product – increased the cadence of new feature development from months to days.
- Directed a team of three to implement a high-throughput, low-latency brokered streaming library. Resulting library is slated to become the company's core interservice communication protocol.

Engineer (Identity and Access Management) » Google September 2015 → September 2016

- Led the architectural design effort of a user-defined permission model for the cloud – the team's only project for the next quarter.
- Took ownership over an unmaintained, service-critical internal compiler; improved compile times by 96% and test coverage by 65%.

Engineering Intern (Ads Ranking) » Facebook January → April 2014

- Analyzed the advertising platform's spending behaviors and subsequently implemented algorithmic changes resulting in a 0.5% revenue increase.
- Parallelized the backend graph ranker, resulting in site-wide response time gains of 0.4%.

Engineering Intern (FIFA Mobile) » Electronic Arts Canada May → August 2013

- Singlehandedly cleaned up 60% of the project's technical debt alongside assigned tasks.

PERSONAL PROJECTS

"Reasonably Polymorphic" Blog 2015 → ongoing

reasonablypolymorphic.com

- Reviews classic papers in functional programming, and presents them for a modern audience.
- Recent topics include recursion schemes, free theorems, reversible computation, and comonads.

Accio 2013 → 2015

github.com/Paamayim/take2

- An analytics platform to answer "who knows what?" in actively changing codebases.
- Won 2nd place in the Yelp SoftEng Capstone Design Symposium 2015.

FORMAL EDUCATION

Honors Software Engineering 2010 → 2015

Bachelor of Software Engineering, University of Waterloo, ON

Relevant Courses

- Adaptive Search – stochastic means of approximating global maxima for chaotic functions
- Compilers – resulting Java compiler was most correct from class of 50 students
- Networking – socket programming; robust protocol design; routing principles
- Numerical Computation – computational error correction; solving differential equations