Ben Kraft

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Employment

Khan Academy, Staff Software Engineer   *2020–2021*

- Core part of planning and architecting company-wide effort to move off Python 2 onto a services architecture in Go lasting over a year and involving over 50 engineers. Designed initial breakdown of services, selected and integrated core technologies, and supported teams moving to the new system.
- Proposed, designed, and built genqlient, an open-source GraphQL client.
- Ported core functionality from Python to Go including authentication and authorization, feature flags, and content publishing.
- Member of 24×7 on-call rotation, responded to complex sitewide outages.

Khan Academy, Senior Software Engineer   *2018–2019*

- Led team of three supporting tooling for 50+ engineers including dev environment and deploy system. Started periodic dev tooling survey to understand pain points.
- Built backend for new time-on-site tracking system processing thousands of events per second to unify reporting for students, teachers, schools, and internal analytics.
- Part of a project to speed up common page load times by as much as 10x by caching user-independent data in a CDN.

Khan Academy, Software Engineer   *2015–2017*

- Architected and co-built new deploy system using pipelining to speed up deploys.
- Tech lead of project rearchitecting content tools to allow more flexible content localization and curricular alignment.

Khan Academy, Software Engineering Intern   *Summer 2014*

- Worked on performance tuning and measurement tooling to decrease cloud costs.

Open Source

genqlient   *2021–present*

- Creator and primary maintainer of genqlient, a strongly-typed Go GraphQL client. Now used by several other companies and projects, with over 500 stars on GitHub.

slicker   *2017–2019*

- Creator of slicker, a tool for moving Python code.

Education

Massachusetts Institute of Technology   *2011–2015*

- S.B. in mathematics with minors in physics and political science, GPA 5.0/5.

Research

- "Diameters of Groups Generated by Transposition Trees", *Discrete Applied Mathematics* 184 (2015).
- "On Conjugacies of the 3x + 1 Map Induced by Continuous Endomorphisms of the Shift Dynamical System", *Discrete Mathematics* 310 (2010).

Volunteering

Learning Unlimited   *2014–2018*

- Member of the Board of Directors (2015–2017), web developer, and mentor supporting educational programs hosted by universities across the country.

MIT Educational Studies Program   *2011–2015*

- Co-chair (2013), program director (Splash 2012, Spark 2014), web developer, teacher, and volunteer for educational programs for middle and high school students.

Selected Buzzwords

- *Languages:* Python, Go, JavaScript (Flow, TypeScript), Haskell, Kotlin, SQL
- *Google Cloud:* App Engine, Datastore/Firestore, BigQuery, Monitoring, Kubernetes
- *Unix:* Linux, Bash, Git, sed, Vim, NGINX, Varnish
- *Other:* GraphQL, static analysis, Fastly, Django, Postgres