

Michael Dresser

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STACKWATCH (KUBECOST) STAFF SOFTWARE ENGINEER

Aug 2023 - Present | Remote

- Proposed, POCed, and productionized a backend data architecture overhaul. This 100x'd supportable customer scale, enabling sales into a previously-inaccessible market segment.

STACKWATCH (KUBECOST) SENIOR SOFTWARE ENGINEER

Feb 2022 - Aug 2023 | Remote

- Served as tech lead and de facto product lead for Kubernetes (K8s) cost optimization. Guided engineers, interviewed stakeholders, and created and reviewed design proposals.
- Designed and implemented fast quantile-based K8s container right-sizing recommendations using log-linear histograms which scaled to 250,000+ container environments. (Go)
- Designed a filtering language for core APIs. Built a lexer, parser, and interpreter for the language. The new representation smoothed the path of data architecture improvements. (Go)
- Helped users upgrade without data loss by leading design and implementation of schema backwards-compatibility. (Go)
- Reduced developer feedback loop from 10 minutes to 30 seconds.
- Interviewed, onboarded, mentored, and supported engineers.
- Demoed in K8s community meetups and podcasts.

STACKWATCH (KUBECOST) FULL STACK ENGINEER

Jan 2021 - Feb 2022 | Remote

- Built and marketed an open-source CLI. 700+ GitHub stars. (Go)
- Built a feature to determine if K8s workloads can be rescheduled onto spot nodes, leading to >50% savings. (Go, TypeScript, React)
- Reduced benchmark feedback loop from 15+ to 3 minutes. (Go)
- Built a nightly CI/CD process. Provided easy internal testing and bleeding-edge user installs. (GitHub Actions)

GOOGLE SOFTWARE ENGINEERING INTERN

May 2020 - Aug 2020 | Remote

- Contributed to K8s test infra, simplifying E2E test workflow in an environment running >90,000 tests/month. (Go)
- Contributed patches to repos in the K8s project. (Go)

TWILIO SOFTWARE ENGINEERING INTERN

May 2019 - Aug 2019 | Denver, CO

- Designed+built a microservice to enable testing. Moved service into Kubernetes. Drove adoption in 3 teams. (Go)

LOGRHYTHM SOFTWARE ENGINEERING INTERN

Jun 2018 - Aug 2018 | Boulder, CO

- Developed microservice to write logs to GCP Pub/Sub. (Go)

EDUCATION

UNIVERSITY OF COLORADO BOULDER

B.S. AND M.S. IN COMPUTER SCIENCE

GPA: 4.0 / 4.0

SKILLS

LANGUAGES

Go • Python • TypeScript • Javascript • Clojure • Bash • Rust • Lisp • SQL • Scala • OCaml • Nim • Java

TOOLS

Linux • Kubernetes (K8s) • Docker • Git • SQLite • Prometheus • GCP • AWS • GitHub Actions

SELECT PROJECTS

EVE ITEM DIFF

Rust, WASM, HTML5

Browser-local tool for diffing lists of items in the variety of text formats output by EVE Online. Backed by a custom parser. Link.

DICELANG

Rust

CLI or simple web frontend for evaluating DnD-like dice rolls, e.g. d20-1d4. Backed by a custom parser. Link: Web version.

THESIS: ARUGULA

Scala

Arugula is a probabilistic programming language that I designed and implemented. It has special semantics that support delayed sampling of distributions combined with symbolic inference, which improves the accuracy of estimators.