Greg Weber

Experienced Software Engineer

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In my most recent position as a hands-on manager and technical lead I turned around a lowperforming team into a productive and skilled team.

At my previous employer, I created the first version of their SaaS offering to deploy their distributed database.

I have used Golang professionally for the last 6 years. This includes API services, cloud provider integrations, Kubernetes, and business process automation. I have developed several open source libraries.

- The errors library for adding stack traces and metadata to errors: https://blog.gregweber. info/blog/go-errors-library/
- A library for precisely handling error codes. https://blog.gregweber.info/blog/go-error-codes/
- Higher level concurrency helpers: https://github.com/gregwebs/go-concurrent
- A library to help catch panics: https://github.com/gregwebs/go-recovery

Experience

and tech lead

management 2.5 years management and hands-on tech lead experience.

dev-ops and 10+ years experience. Created the first version of TiDB Cloud, a distributed cloudinfrastructure hosted database. At a biotech company I created a workflow engine that met the data pipeline's scaling needs of a thousand nodes and used minimal resources.

- Cloud (AWS, GCP) and Kubernetes
- o Configruation management with Pulumi, Terraform, CloudFormation, and Cue

Backend 15+ years experience. Web applications and services in Golang, Haskell, and Ruby on Rails.

Compliance/ 5+ years experience. SOC 2, HIPAA, and financial compliance. Developed docu-Regulation mentation, process, architecture, and tooling to satisfy regulatory requirements

Security Creating and enhancing security features, reviewing security posture, improving code quality for security

Hard Developed a novel method to extract tabular data from PDFs. Worked to improve Problems database security and performance stability: https://github.com/tikv/rfcs/ pulls?q=is%3Apr+author%3Agregwebs

Static Safety Introduced optional typing with Typescript, MyPy (Python), and linters for Golang.

Web Frontend 5+ years experience. Front-end Javascript (TypeScript) experience. Basic CSS

- https://eatnutrients.com a client-side React application I made
- o https://docjumper.com a client-side React application I contributed to

Data Data processing in Python. Database code in Rust. Processing

Programming Languages

Go 6+ years experience. Cloud, Kubernetes, and web services programming. Created several golang libraries to improve errors, panic handling, concurrency, and parallelism.

- o https://blog.gregweber.info/projects/
- o https://github.com/gregwebs/errors/
- o https://github.com/gregwebs/errcode/
- o https://github.com/gregwebs/go-concurrent/

Typescript 5+ years experience. TypeScript and Javascript for frontend development with React. Typescript in configuration management with Pulumi and AWS CDK. Wrote 2 different frontend applications: eatnutrients.com and docjumper.com.

Rust I have programmed professionally by contributing to the open source TiKV code base and writing an agent in Rust. My experience with Haskell makes Rust concepts easy to pick up.

- https://github.com/tikv/tikv/pull/9647
- https://github.com/tikv/tikv/pull/9696/files

Haskell Programmed professionally and authored, maintained, or contributed to many highly used community libraries such as Persistent, Yesod, Shelly, and xss-sanitize.

- Yesod (web framework)
- Persistent (database ORM)
- xss-sanitize (XSS attack prevention)

Python Experience in pipeline, infrastructure, and analysis settings. I have successfully introduced MyPy, unit testing, and continuous integration into Python code bases.

Ruby I have developed Ruby on Rails application and published small Ruby gems in the past

Recent Jobs

2022 - 2025 Principal Engineer, Digital Mint, Chicago.

I managed a small team and spent most of my time as a hands-on lead developer. I reviewed code, did release management, and wrote code every day. I turned around a low performing team into a productive team that cleaned up technical debt and achieved SOC 2 compliance. I worked closely with those outside engineering to understand our processes and business needs.

2018 – 2022 **Senior Software Engineer**, *PingCAP*, San Mateo.

I lead the development of the initial version of TiDB Cloud and continued with a focus on security and cloud integration. SOC2 compliance. Databases, cloud, Kubernetes. Most of my work was not open source, but there are some open source contributions:

- o https://github.com/tikv/tikv/pull/9647
- https://github.com/pingcap/tidb-operator/pull/789/files

2015 – 2018 **Software Engineer**, *Karius*, Redwood City.

Lead software engineering of the production analytic component and infrastructure at this biotech company.

- o Built a job flow controller that scaled up to thousands of machines and down to zero.
- Stabilized research grade software. Managed releases for the software powering the analysis of our diagnostic.
- Developed regulatory documentation
- o Involved with HIPAA compliance.

2015 Lead Engineer, Pivot Mail, San Jose.

A security company that used Haskell.

I improved infrastructure, made specifications, and did release management, and worked on a cross-deployment project to different platforms before the company was wound down.

2013–2014 Lead Engineer, Docmunch, San Francisco.

Developed a novel PDF table extraction technique from first principles. Wrote frontend and backend web app code.

First engineer at a startup. Led development and technical interviews.

Education

2005 B.S. ECE, University of Iowa.

Publications

Personal Blog https://blog.gregweber.info

Shell scripting with type-safety using Haskell

Original article published in the German Linux Magazin.

Translated to English:

http://www.linux-magazin.de/Online-Artikel/

Shell-scripting-with-type-safety-using-Haskell/

Presentations

Functional Front End Coding

 $\verb|http://begriffs.com/posts/2015-11-30-functional-front-end-coding.| html|$

Shell scripting with Shelly

http://www.meetup.com/haskellhackersathackerdojo/events/91714772/

Building complex UIs with AngularJS

http://www.youtube.com/watch?v=VxuN6W03tIA