

## Work Experience

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### ProPublica

Principal Engineer

October 2023 – Present  
Seattle, WA

- Led ProPublica's website infrastructure team by creating a team strategy, team OKRs, weekly meetings, project goals, and by mentoring three engineers.
- Created a strategy for software security and privacy by identifying potential risks and proposing short-term and long-term mitigations.
- Coordinated the incident response team and postmortem analysis for 5 incidents.

### Google, Google Kubernetes Engine (GKE)

Senior Software Engineer in Security, Tech Lead

April 2022 – April 2023  
Seattle, WA

- Led a project to improve the security of Kubernetes software supply chains, and in the process, established a vision, charter, roadmap, and organizational consensus on support for the project.
- Created a 24x7 oncall for Kubernetes security and led the response for one major security incident.
- Mentored three security team members to create supply chain auditing and reporting software in Go, which was used to identify and fix hundreds of supply chain issue across dozens of GKE-related projects.

### Google, Google Kubernetes Engine (GKE)

Senior Software Engineer, Tech Lead

May 2018 – April 2022  
Seattle, WA

- Led a project and team to improve the stability, reliability, and velocity of GKE releases by standardizing and modularizing 100+ software packages comprising a GKE release.
- Mentored four engineers and collaborated with three partner teams to gather requirements, design the system, develop the roadmap, and implement the design.
- Successfully launched the new release system which improved the release by instituting a new qualification framework, fully-automating deployments, providing by-default monitoring, and providing new tooling for outages and incidents.

### Google, Google Kubernetes Engine (GKE)

Software Engineer

May 2016 – May 2018  
Seattle, WA

- One of two founding members of GKE's production team, responsible for establishing monitoring, reliability standards, and incident response for GKE.
- Spearheaded a project to automate the expansion of new geolocations, resulting in 10+ new available Google Cloud zones for customers over the span of 3 years.
- Designed and implemented monitoring and auditing software for GKE clusters to detect and mitigate unauthorized internal access of customer data.

### Google, Payments

Software Engineer

Sept 2011 – May 2016  
Boulder, CO

- Oversaw a team of three engineers to migrate Google's internal payments management system from Python to Java, AngularJS, and Material Design.
- Directly led the creation of 5 new accounting-focused payments tools, and collaborated on the migration and creation of 50+ payments tools, which provided new capabilities for KYC, risk, fraud detection.
- Developed batch payment transfer systems in Java to send and track disbursements for European customers, which when launched, handled tens of millions of dollars of disbursements monthly.

### SocialMedia.com

Software Developer

Sept 2010 - May 2011  
Boulder, CO

- Created a web service in Scala to generate and analyze ads, which received millions of views.

## Education

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### Bachelor of Arts

Mathematics

Thesis: Computational Complexity

Reed College  
September 2004 – May 2009

## Technical skills

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### Programming Languages

Go, Python, Javascript, Java

### Technologies

Kubernetes, GKE, Docker, Google Cloud, Bazel, NodeJS, LaTeX

## Projects

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### Kubernetes Cluster Bundle

Sept 2018 - April 2023

[github.com/GoogleCloudPlatform/k8s-cluster-bundle](https://github.com/GoogleCloudPlatform/k8s-cluster-bundle)

Designed and maintained the Kubernetes Cluster Bundle, which provides a novel packaging format and tooling in Go for Kubernetes resources, used by both Anthos and GKE releases.

### Maktaba

Dec 2013 - April 2023

[github.com/google/vim-maktaba](https://github.com/google/vim-maktaba)

One of six primary collaborators on an open source standard library for Vim plugins, which is used weekly by over 60,000 Google employees. One of three collaborators on the first VimScript style guide at Google, which we published externally at [google.github.io/styleguide/vimscriptguide](https://google.github.io/styleguide/vimscriptguide).

### Otrego

Jan 2020 - 2022

[github.com/otrego](https://github.com/otrego)

Creator and maintainer of libraries written in Go to manipulate go game records. Published high quality fonts for printing go books and libraries for interacting with go AI engines. Led weekly meetup sessions from 2020-2021 dedicated to improving the libraries and mentoring new contributors.

### Minigo

Jan 2018 - May 2018

<https://github.com/tensorflow/minigo>

Collaborated with three other engineers to create a Kubernetes-based training for the machine learning project Minigo, an open source, from-scratch implementation of the AlphaGo AI system. After training, Minigo was able to achieve professional-level go capabilities.

### GPub

Jan 2015 - 2017

[github.com/artasparks/gpub](https://github.com/artasparks/gpub)

Creator and maintainer of GPub, a JavaScript library for publishing books for the game go. GPub was used to create and publish a 600 page compendium of go game reviews in 2016, *Relentless: Lee Sedol vs Gu Li*.

## Talks

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### How Does Google Release Kubernetes in GKE

KubeCon EU

May 2019

### GKE Releases Management and Strategy

Cloud Next

April 2019

### Building a Go AI with Kubernetes and TensorFlow

KubeCon EU

May 2018