

# Emily Zhang

## Software Engineer

previously focused on  
infrastructure, looking to move  
into full-stack or backend work

## Contact Information

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## Skills

Go, Terraform, Kubernetes, AWS, Docker, Javascript (Node.js),  
Elasticsearch, Redis, PostgreSQL

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## Experience

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### Software Engineer, Lob

Aug 2018 - Present, San Francisco, CA

- Migrated untracked AWS resources to Terraform (managing our infrastructure as code).
  - Made deployments and rollbacks more reproducible and reduced the maintenance burden of our infrastructure.
  - Collaborated heavily with engineers from other teams as an expert technical resource on Terraform and AWS resources.
- Worked on migrating Lob's production workloads from a legacy container orchestration system to Kubernetes.
  - Researched, prototyped, and deployed the following components into our Kubernetes clusters: ingress, pod IAM roles, certificate management, metrics, deployment tooling, and ensuring pod availability.
  - Intended to address long-standing problems with infrastructure availability, observability, and control. However, this project was eventually postponed due to circumstances beyond our control.
- Built internal tool in Go for Kubernetes cluster and deployment management to reduce the friction of the Kubernetes migration for our engineers.
  - Integrated with Docker, Kubernetes, AWS, and Helm to simplify our developer and CI/CD workflows.
  - Designed and implemented container image management, including builds, registry interaction, and secret management.
- Built [open source tool](#) in Go for managing multi-cluster workflows for Kubernetes, including centralized kubeconfig management, access control, and kubectl integration.
- Refactored our logging pipeline to be more resilient during periods of increased load or unpredictable downstream issues.
  - Wrote an autoscaling Go worker to process logs, improving log delivery reliability. In the previous design, logs were dropped whenever our Elasticsearch cluster experienced back pressure.

### Software Engineering Intern, Lob

May 2017 - Aug 2017, San Francisco, CA

- Designed, built, and shipped a [customer facing API endpoint](#) (Elixir, Node.js) that receives ~3k requests per day.

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## Education

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### University of California, Berkeley (B.A. Applied Mathematics)

Aug 2014 - May 2018, Berkeley, CA

- Computer Science Minor
- QA Engineer, Berkeley Student Technology Services