

# Cole Koester

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**Summary:** Software developer with 5 years of experience in full-stack programming and cloud architectures, migrations, and operations. Improves and debugs large scale systems while minimizing user disruptions.

## PROFESSIONAL EXPERIENCE

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### Lyft Inc.

New York, NY

#### Software Engineer, Production Infrastructure

11/2021 - Present

#### **Zone Aware Routing: Improved intra availability zone routing with ROI of \$2 million.**

- Reduced inter-AZ production inter-AZ traffic to 40% of its original value. Deprecated error prone load balancing components.
- Migrated 1416 microservices to envoy load balancing subsets.
- Wrote design spec and grafana/kibana dashboards. Communicated with customer teams to debug load balancing edge cases.

#### **No More Yaml (NoMoYa): Decreased time-to-deploy networking settings from 15 minutes to less than 30 seconds.**

- Implemented new configuration API server (GoLang) and user interface (TypeScript + React) handling circuit breakers, health check endpoints, traffic migrations, and network dependency allow lists.
- Improved team operations through self-service SEV mitigation, preventing context switching from team members.

#### **Control Plane Backend Sharding: Collaborated with tech lead to simplify endpoint discovery.**

- Transitioned from leader-elected writers to independent writers, enhancing service reliability and simplifying the deployment pipeline.
- Implemented new data layer on control plane frontend and backend with 0 downtime, and a 99.95% mesh availability SLA.
- Parallelized service discovery queue reducing endpoint query latency by roughly 50%.

#### **Networking Day-to-Day**

- Participated in debugging and mitigating more than 100 incidents through analyzing various kibana and prometheus queries, and SSHing into hosts themselves to validate networking components.
- Performed technical deep dives on load balancing, did 30+ candidate interviews, actively helped in team planning, and acted as mentor for both interns and new-hires.

## EDUCATION

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### Tufts University

Somerville, MA

#### Bachelor of Science in Mathematics | QuestBridge Scholar

## SKILLS & INTERESTS

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- **Languages:** GoLang, TypeScript, Python, Java, C++, C, Rust
- **Tools:** Envoy, Kubernetes, Docker, Prometheus, Grafana, Kibana, Terraform, AWS, GCP