

# Sean Collins

SENIOR SITE RELIABILITY ENGINEER

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## Experience

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### LinkedIn

Sunnyvale, CA

SENIOR ENGINEER, SITE RELIABILITY

2017 — 2022

- **Primary experience: Python, MySQL, Java, Go, Linux**
- Created distributed agent for MySQL infrastructure, which consolidated monitoring, alerting, and metrics emission for all 1000+ database servers into a single consistent codebase.
- Created streamlined tool to automate common operational tasks, reducing time spent by up to 40%.
- Consulted for 2-3 projects per quarter as a Python automation subject matter expert.
- Collected data to highlight where human hours could be automated away on a monthly cadence.
- Exposed live customer availability metrics via an internal dashboard.
- Represented relational storage in various horizontal initiatives, in the areas of observability, alerting/metrics, and operations at scale.
- Reduced change-related production issues by applying existing tooling to test, canary, and gradually roll out new infrastructure changes.
- Participated in an on-call rotation; applied measured analysis and intervention to maintain site stability.

### Toontown Rewritten

Remote

TECHNICAL OPERATOR / GAME DEVELOPER

2020 — 2022

- **Primary experience: Kubernetes, Helm, Panda3D (Python)**
- Designed and implemented a Helm-based deployment system, resulting in an increase in deployment velocity from once per quarter to several times per month.
- Migrated all customer data, update history, and database backups between cloud providers with minimal customer-facing downtime.
- Developed core features and new content via the Panda3D game engine.

## Selected Projects

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### mysqlmon

PYTHON, MYSQL

2019 — 2022

*A distributed, agent-based monitoring, alerting, and availability framework.*

mysqlmon was a distributed agent which enabled hosts to monitor, alert, and expose live metrics of themselves on a strictly enforced minute cadence. Release in the agent resulted in a major paradigm shift in the team, enabling full operational onboarding of new engineers within one month and reducing operational overhead within the team to the extent that others could begin building infrastructure of their own.

### mysqltool

PYTHON, LINUX, MYSQL

2020 — 2022

*A simple tool to execute operational runbooks.*

mysqltool consolidated operational workflows into a single codebase, which ran these flows as automated runbooks. Time to complete one common workflow, preparing a host for use, was reduced from an average of 40 minutes to 15 minutes to complete.

### Production CI/CD overhaul

HELM, GITLAB CI, KUBERNETES, RANCHER

2020

*Simple, consistent client updates and deployments to Kubernetes.*

A rewrite of a manual deployment system. GitLab CI was used as the CI platform to publish client patches and containerize server updates, and Kubernetes infrastructure (ingresses, services, policies, etc.) was declared and packaged via Helm chart. Where previous deploys would take several days of planning and could only be done by a subset of engineering, the new system allowed anyone vaguely technical (engineers, support, team leads) to publish updates to dev, QA, or prod via a simple GUI and guided documentation.

## Education

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### Georgia Institute of Technology (Georgia Tech)

Atlanta, GA

B.S. COMPUTER SCIENCE, CHINESE MINOR

Aug 2012 — Dec 2015

- Specialized in computer architecture, distributed systems, database systems, and networking.
- Studied at Shanghai Jiaotong University as part of a business and technology Chinese immersion program.