

# Robert Horn

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Engineering leader and Full-stack Software Engineer with 10+ years building distributed systems and leading high-performing teams. Proven track record of building reliable data and observability platforms.

## Work Experience

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### LogRocket

*February 2022 - Present*

Engineering Manager, Data Platform (*February 2024 - Present*)

- Led a team of 4 engineers; led team agile ceremonies and conducted regular 1:1s with team members to capture context of 3-4 concurrent projects and foster career growth
- Led the Data Platform roadmap & planning by collaborating with Product Managers from 3 product teams to understand product initiatives and needs from the platform
- Championed the project for changing ClickHouse vendors in order to leverage architectural differences in compute-storage separation and further reduced storage costs by \$30k/month
- Led the project to upgrade a monolith service responsible for managing customer configurations and billing to modern versions of Python and Django
- Piloted a ClickHouse-based observability platform using Grafana to visualize product query usage and performance which helped identify potential performance optimizations across multiple teams; partnered with SRE to transition the pilot to operational use
- Actively participated in all stages of the hiring pipeline, including top of funnel review of candidates; collaborated with Recruiting to refine screening process

Senior Software Engineer, Data Platform (*February 2022 - February 2024*)

- Key contributor to the migration from Elasticsearch to ClickHouse project, which generated ~\$100k/month in cost savings and unlocked new feature development for the analytics roadmap
- Developed a new batch ingestion pipeline for efficiently ingesting analytics data into ClickHouse with minimal load
- Designed and developed a schema migration tool for developers to more easily author schema changes and settings
- Created monitoring dashboards and alerts in GCP for ClickHouse operations
- Developed a Helm chart for deploying ClickHouse in Kubernetes to be used for self-hosted environments; coordinated with Customer Success to migrate self-hosted customers

### The MITRE Corporation

*January 2015 - January 2022*

Lead Software Engineer (*April 2021 - January 2022*)

- Led the development of Ansible CI/CD pipelines for an internal IaaS platform to automate the deployment and configuration management of project environments
- Deployed and maintained GitLab and Rundeck servers to be compliant with security policies and were utilized by operational automation processes
- Identified Day 2 operational issues with a DevOps platform codebase used by multiple projects; proposed architectural and development process changes to improve maintainability and business continuity of the platform
- Managed and mentored a diverse group of 6 technical staff members in career growth and goal setting

Senior Software Engineer (*May 2017 - April 2021*)

- Led a team of 4 engineers in the development and maintenance of 4 greenfield and 5 brownfield software systems from inception to operational fielding
- Led the architectural design and development of distributed services and tools written in Go that allowed interoperability with external systems and provided tactical message reliability and assurance in unreliable networks
- Built a cross-functional team by mentoring junior engineers in customer domain and technologies

- Extensive experience with Go and Android development, network setup, system integration, and field testing

Software Engineer (*January 2015 - May 2017*)

- Developed a distributed log collection service to automate the collection of application logs from Android systems over tactical radio networks during field integration and test events
- Led a team of 3 summer interns to develop a prototype React application that allowed machine learning researchers to easily perform pixel-level labeling of images
- Developed a web application using jQuery and Node.js to visualize geospatial and temporal data stored in MongoDB

## Health Information Designs

*May 2011 - December 2014*

Software Engineer Intern

- Developed, deployed, and maintained service oriented architectures for electronic prior authorization systems that are required to process transactions in under 500ms with 99.9% uptime
- Identified inefficiencies with existing criteria testing process, and designed and implemented a user-based solution which resulted in the reduction of developer hours spent creating criteria tests
- Improved test data fabrication by creating a recipient search feature that parameterized claims history and allowed users to search in real-time through millions of recipient records and claims data

## Auburn University

*May 2013 - December 2014*

Undergraduate Research Assistant

- Contributed to source-level program transformation and refactoring tools for the C and Go programming languages
- Added GNU C Compiler extensions to the lexical grammar in order to parse and refactor the Linux kernel
- Developed a JSON-based protocol to enable text editors to interface with the refactoring tool

## Skills and Experience

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**Languages:** Go, JavaScript/TypeScript, Python

**Technologies:** React, Node.js, Kubernetes, Helm, Docker, ClickHouse, Terraform, gRPC, GCP, BigTable, PubSub, GraphQL, ElasticSearch, Git, PostgreSQL

**Expertise:** Distributed Systems, observability, DevOps, Agile software development, microservices, systems programming, version control, Unix/Linux computer architecture, RESTful API and service design

## Education

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**Auburn University:** *Bachelor of Software Engineering*

*Auburn, AL (August 2009 - December 2014)*