# Nathaniel Allred

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## Work Experience

### Senior Go Engineer at Joyent (Aug 2023 - Present)
- Reimplemented a Gorm-based POC into a performant, hyperflexible API.
- Supported all aspects of the team's infrastructure.
- Collaborated on creating a high scale messaging and observability system.
- Increased deployment confidence with an extensive integration test suite.
- Tech Stack: Golang, Postgres, Kubernetes, Graylog, Kafka, VMs, Jenkins

### Job seeker (May 2023 - Aug 2023)
- Got CKA, accepted a later-rescinded role (remote work policy change), did GraphQL & Vue POC

### Software Engineer II at Mattermost (July 2021 - May 2023)
- Drove solutions-focused conversations with technical specifications.
- Devised, built, and helped teams use the Mattermost Cloud Free limits system.
- Built the experience powering self-hosted purchase from within Mattermost.
- Extended and maintained the existing user and billing system.
- Debugged complex CI/CD pipelines to ensure correct artifact generation.
- Optimized sign up and new user retention experiences.
- Frequent, prompt, and detailed reviewer on large open source codebases.
- Tech Stack: Golang, Postgres, Stripe, Gitlab, Kubernetes, Python, React, Redux

### Senior Engineer at Target (May 2020 - June 2021)
- Improved deployment culture, moving us from monthly to weekly deploys.
- Code quality: cut code panics from weekly to virtually nonexistent.
- Bolstered a CI/CD pipeline, enabling new end to end test scenarios.
- Helped develop an in-house Virtual Machine Manager.
- Improved docs & training, saving new teammates weeks in ramp up time.
- Maintained a large OpenStack private cloud.
- Tech Stack: Golang, Libvirt, Python, OpenStack, Raft, Hashivault, Ansible

### Software Engineer at Leadpages (Jun 2018 - May 2020)
- Instrumental in creating Leadpages' site builder.
- Solved performance bottlenecks; added performance regression tests.
- Made an ETL pipeline and accompanying data visualizer.
- Revamped signup and payment, including PayPal integration.
- Relentlessly pared down unused code.
- Tech Stack: React/Redux, TypeScript, Python, Scala, Akka

### Front End Developer at NRT (Jul 2017 - Jun 2018)
- Worked on a public facing, high traffic site (coldwellbankerhomes.com).
- Created a Javascript dependency visualizer for reducing code complexity.
- Decreased CSS by 20% on the homepage via module loading.
- Created an automated CSS usage tracking tool with Puppeteer.
- Advocated use of new web APIs, technologies, and functional programming.
- Tech Stack: ES6, jQuery, SASS, Gulp, NPM, TFS, VSTS, Git

### Front End Developer at Best Buy (Jul 2016 - Jun 2017)
- Testing: converted Karma/Mocha to Jest and doubled coverage to 80%.
- Decoupled our codebase from another by creating a separate build process.
- Interviewed, onboarded and trained new teammates.
- Tech Stack: React/Redux, ES6, LESS/CSS, Jest, Jenkins, Grunt, Webpack

## Education

- B.A. International Relations, Brigham Young University (December 2015)
- Certified Kubernetes Administrator (LF-754cvij8hz, June 2023)
- edX Verified Certificate for Database Architecture, Scale, and NoSQL with Elasticsearch, (May 2023)
- edX Verified Certificate for Introduction to Cloud Infrastructure Technologies (April 2023)
- edX Verified Certificate for JSON and Natural Language Processing in PostgreSQL (April 2023)
- edX Verified Certificate for Database Design and Basic SQL in PostgreSQL (April 2023)
- edX Verified Certificate for Intermediate PostgreSQL (April 2023)
- Front End Web Development Certification, Free Code Camp (February 2016)

## Other projects

- lilgit: A simple GitHub alternative (Rust, git2-rs, actix-web)
- upgit: Highly parallel git repo updater CLI (Rust, git2-rs)
- scriptured: Client-side scripture search (Rust, WebAssembly, TypeScript, React)
- recipes: Multi user-group recipe sharing app (Go, htmx, SQLite)
- feed-my-sheep: Volunteering calendar app (Elm, Python, Flask)

## Service

- Mentor avid learners breaking into programming careers (2017 - Present)
- LDS Missionary in Rosario, Argentina Mission (Aug 2010 - Aug 2012)