Kia Farhang.

Senior engineer in Austin, TX who loves designing and building back-end systems, test-driven development, and mentoring others.

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EXPERIENCE

Senior Software Engineer, GraphQL Platform — *The New York Times*

OCT 2022 - PRESENT

Lead architectural voice for the Times's GraphQL API, which powers mobile apps, the website and other reader-facing experiences through more than 1 billion requests per day.

- Lead designer, planner and engineer for migration from a Node.js-based federated graph gateway to a Rust + Go-based solution
  - Incremental migration of billions of requests from dozens of clients
  - Moving from Node.js Apollo Server running in team-owned Kubernetes clusters to Apollo Router (Rust binary with configuration) and a Go microservice deployed on the company's new shared K8s platform
  - Unlocks critical client needs like GraphQL subscriptions and field-level access control
  - Projected to save the company $200k per year in cloud compute
- Led the team in multiple rounds of observability improvements to our platform, including:
  - Creating automated alerting at our CDN layer to catch issues before clients report them
  - Creating a single-pane-of-glass dashboard that shows the health of all layers of our stack: the CDN, internal networking layer, federated graph gateway, and the GraphQL microservices that power it
  - Democratizing knowledge with client-facing dashboards and documentation, giving external teams the power to answer questions without our help
  - Co-wrote the organization's first standard on trace

SKILLS

Java
TypeScript
Go
Kubernetes (CKAD)
React
GraphQL
Node.js
Test-driven development
REST API development

PORTFOLIO

Find my work at **kiafarhang.com** or **github.com/KiaFarhang**

span metadata, improving the debugging experience for engineers across the company

- Authored over 350 commits and reviewed over 450 pull requests across our 7-engineer team's stack:
    - Top contributor to the Node.js gateway, its Rust + Go replacement, and our Terraform repository for observability infrastructure
    - Top-3 contributor to our CDN-layer configuration and legacy Scala GraphQL service
- Mentored engineers across the experience spectrum:
    - Guided our 2023 summer intern through the design and creation of a Node-based platform API test suite, used to validate the new graph gateway and catch issues in automated daily runs
    - Onboarded our team's only early-career engineer, helping him design and write a Go algorithm for reconciling conflicting HTTP headers returned to clients from multiple GraphQL microservices
    - Just helped my summer mentee get promoted to a senior role, and I am so proud of them :)
- Currently serving an 18-month term on the company's Architecture Review Board, weighing in on proposals for new systems and significant changes to existing ones

Platform Engineer — *DataStax*

FEB 2022 - OCT 2022

Created, maintained and improved the infrastructure powering Astra, our Cassandra-as-a-service offering.

- Worked daily on platform infrastructure, which ran on Kubernetes in AWS, GCP and Azure.
- Maintained and added features to the Go microservices powering Astra.
- Started an initiative to reduce unnecessary spend on stale development images in Elastic Container Registry repos.
- Created a disaster-recovery plan for a critical internal database after an incident revealed it had no documentation or clear recovery process.
- Helped our observability team implement a new logging stack with Fluent Bit and Vector.

Full-Stack Engineer— *DataStax*

FEB 2021 - FEB 2022

Full-stack work on the team behind Astra UI, the front door to

Astra (Cassandra-as-a-service).

- Built new features in the React application and its backing GraphQL server.
- Drastically improved reliability and observability in the Node.js GraphQL application with tools like HTTP retries, standardized logging and improved error handling for better user experience.
- Created a Node.js gRPC client for Stargate, the open-source data gateway used and developed at DataStax.
- Introduced Sonar code coverage and quality gates to the UI codebase to improve delivered product and reduce bugs shipped to production.
- Led a successful effort to increase codebase test coverage from 15% to 45% over three months.
- Added integration and end-to-end tests to our application pipelines with the Cypress testing framework.
- Identified and squashed cross-cutting bugs in back-end Go microservices.

Software Engineer — *USAA*

MAY 2018 - FEB 2021

Full-stack development in the bank's deposits division.

- Designed, built and tested React/Redux applications, Java REST APIs and Java batch processes.
- Led and developed projects around debit/credit card activation, account origination and account closure that serve thousands of USAA members daily.
- Part of a tiger team tasked with designing, prototyping and standardizing the future state of the deposits technology portfolio.
- Spent extensive time on call and in high-pressure outage scenarios during a rotation on the area's maintenance and production support team.
- Brought my development team to 100% predictability/feature delivery in the first three months I served as team lead. (No missed deadlines/milestones)

Full-Stack Developer — *San Antonio Express-News*

JUNE 2017 - APRIL 2018

- Used React to build a library of reusable components to present the newspaper's best content.
- Designed, created and tested Node.js APIs to serve data to front-facing apps and the public.

- Wrote Node.js web scrapers and other tools to automate and simplify newsroom tasks.

EDUCATION

University of Minnesota, Twin Cities — *B.A., Journalism*

2012 - 2014