
Michael Knowles

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SKILLS

Go, Javascript, Typescript, Java, Docker, SQL, NoSQL, React, Google Cloud

EXPERIENCE

Alpine IQ - *Staff Software Engineer*

April 2021 - PRESENT

- Promoted from Senior Software Engineer January 2023
- Led a team of engineers developing a SaaS platform in Go, React, and Google Cloud servicing 200 million users, analyzing \$24 trillion in sales, and sending 2 trillion messages annually
- Mentored junior engineers, fostering skill development and knowledge sharing within the team
- Architected a monolith into microservices improving system uptime from 96% to 99%
 - Established unit/integration tests along with feature flags to ensure behavior parity
- Led the database migration to Google Bigtable to reduce P99 latency from minutes to less than half a second and facilitate scalability
- Reduced average latencies for large analytical queries from 10+ minutes to under 5 seconds
 - Developed ETL pipelines utilizing Clickhouse for efficient processing and analytics
- Introduced a CI pipeline to ensure software quality with automated linting, testing, and the usage of non-production environments leading to lower incidence rate and code churn
- Implemented observability to better inform developer decisions and speed up incident/ticket resolution
- Collaborated with cross-functional teams to gather requirements and provide technical guidance, ensuring alignment with business objectives
- Implemented security best practices, conducting regular penetration testing to ensure system integrity and met requirements for SOC 2 and HIPAA compliance
- Cooperated with third party vendors to develop dozens of seamless integrations
- Met directly with clients to gather requirements and feedback for future platform development

Blue Shield of California - *Application Developer*

January 2019 - April 2021

- Created vendor facing REST APIs used to query and load data in near real time instead of daily/weekly batches using Java Spring and Oracle SQL
- Re-architected Java and Informatica applications improving performance by up to 50%
- Created tooling for unit test case creation and logging using React, Node, and OracleDB
- Developed a program to validate production deployments and sync environments using Python. Reduced manual work and improved accuracy saving over 30 hours per release
- Formed a collaborative team knowledge base for onboarding and team documentation using Confluence
- Piloted the transition of the business to Agile from Waterfall