

Joel Bandi

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EXPERIENCE

TWILIO, INCORPORATED STAFF SOFTWARE ENGINEER

Apr 2024 - Present | San Luis Obispo, CA

- Designed data schemas in OLAP databases for highly performant querying and data visualization applications.
- Took on-call responsibility to manage observability and uptime for team-owned services, debugging and resolving SEVs.
- Maintained multiple self-hosted, highly replicated, and sharded Clickhouse DB platforms on Kubernetes for other engineering teams.
- Maintained a Trace DB-like system for other engineering teams to use for contact tracing in their business logic with BCR and GDPR compliance.
- Provided Clickhouse APIs and RPC servers for ingestion, querying, schema migration control, backups, monitoring, and alerting.
- Transformed the single-cluster, multi-domain architecture to a multi-cluster, single-domain architecture for Clickhouse, allowing cost optimization. Achieved a cloud COGS savings of 24% and increased query speed by 29% on average.
- Skills used: Ruby, Go, Kubernetes, Helm, Zookeeper, Kafka, gRPC, LLM tools for code generation.

TWILIO, INCORPORATED SENIOR SOFTWARE ENGINEER

Sep 2022 - Apr 2024 | Santa Barbara, CA

- Worked on the CDP Analytics platform, creating and maintaining high-throughput data ingestion pipelines.
- Took on-call responsibility to manage observability and uptime for team-owned services.
- As an SME for the analytics platform, consulted on a SEV affecting a churn-risk customer, quickly debugged the upstream data source issue, and implemented a quick fix to the systems while the upstream was being fixed, thereby maintaining customer satisfaction.
- Re-designed and re-implemented a v2 ingestion pipeline that decreased memory requirements for querying by 100%, added deduplication, and made the query results deterministic.
- Created a new deployment pattern for multi-deployments within the same codebase while being backward compatible with the existing GitOps deployment flow.
- Skills used: Ruby, Go, React, Kubernetes, GraphQL, gRPC.

TELADOC HEALTH SOFTWARE ENGINEER III, ENGINEERING TECH LEAD

Nov 2021 - Sep 2022 | Santa Barbara, CA

- Led two teams simultaneously - web platform and maintenance of value-added services.
- Broke down the React SPA's global state management to use smaller domain-driven stores, reducing unwanted re-renders and improving performance by 200%.
- Skills used: Rails, React, Node, and other database and deployment technologies.

APPFOLIO INCORPORATED SOFTWARE ENGINEER I AND II

Jul 2017 - Nov 2021 | Santa Barbara, CA

- Worked with AppFolio tenant screening product infrastructure and product team.
- Led multiple third-party integrations and compliance-related goals under deadlines while on-call.
- Co-created the data vendor fallback pattern that auto-switches to the next available vendor when the primary vendor is down, reducing outage incidents to effectively zero.
- Created and maintained many open-source gems for use in the company and Ruby community.
- Created a CircleCI plugin to warn when adding code not compatible with the next Rails version.
- Co-created a full-featured internal tool to help public record analysts manage customer interactions regarding screening reports, reducing customer turnaround time from 3 days to 1 hour.
- Mentored many summer interns and helped onboard new hires.
- Skills used: Rails, React, Node, and other database technologies.

SKILLS

TECHNOLOGIES

Ruby | Golang | Node (TypeScript) | SQL | SOLID | Rails | React | Kafka | Clickhouse

INFRASTRUCTURE

AWS | Docker | Kubernetes (K8S) | CI/CD | Git | DataDog | GitOps | ArgoCD | Terraform | Prometheus