

# Joel Bandi

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## EXPERIENCE

### **TWILIO, INCORPORATED** STAFF SOFTWARE ENGINEER

Apr 2024 – present | San Luis Obispo, CA

- Designing data schemas in OLAP databases for highly performant querying and dataviz applications.
- On-call responsibility to manage observability and uptime for team owned services, debugging and resolving SEVs.
- Maintaining multiple self hosted, highly replicated and sharded Clickhouse DB platform on Kubernetes for other engineering teams to use.
- Maintaining a Trace DB like system for other engineering teams to use for contact tracing in their business logic with BCR and GDPR compliance.
- Providing Clickhouse APIs and RPC servers for ingestion, querying, schema migrations control, backups, monitoring and alerting.
- Worked on transforming the single cluster, multi-domain architecture to multi-cluster single domain architecture for clickhouse allowing us to cost-optimize. This allowed us to achieve a cloud COGS savings of 24% and increase query speed by 29% on average.
- Skills used: Ruby, Go, Kubernetes, Helm, Zookeeper, Kafka, gRPC, Distributed systems.

### **TWILIO, INCORPORATED** SENIOR SOFTWARE ENGINEER

Sep 2022 – Apr 2024 | Santa Barbara, CA

- Working on CDP Analytics platform, creating and maintaining high throughput data ingestion pipelines.
- On-call responsibility to manage observability and uptime for team owned services.
- As an SME for analytics platform, I was able to consult on a sev that is affecting a churn risk customer, quickly debugged the upstream data source issue and implement a quick fix to the systems while the upstream gets 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 backwards 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

- Leading two teams simultaneously - web platform and maintenance of value added services.
- Worked on breaking 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.
- Lead 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 our outage incidents to effectively zero.
- Created and maintained many open source gems for use in company and ruby community.
- Created circle CI plugin to warn when adding code not compatible with the next rails version.
- Co-Created full featured internal tool to help public record analysts to manage customer interactions regarding screening reports, this reduced the customer turn around time from 3 days to 1 hour.
- Mentored many summer interns and helped with onboarding of 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 | K8S | CI | Git | DataDog | GitOps | ArgoCD | Terraform | Prometheus