

SUMMARY

I'm an expert at backend distributed systems, micro-services, Go, and Developer Experience, looking for a role with impact, where I can help bring clarity and success to your complex projects.

WORK EXPERIENCE

SQUARE / BLOCK

Sep 2015–Mar 2025

Staff Engineer (Block "L7")

Frameworks Team: IC – 2023–2025

- Member of Square's **Technical Governance Review Board**, reviewing and approving Architectural Decision Records (ADRs) for core technology selection and retirement.
- Plumbed W3C Trace-Context and Baggage through all three frameworks, using OpenTelemetry code-level APIs, enabling traffic diversion to developer microservice instances buried in the RPC call graph.
- Worked with Network, Deployment, Data/Security/Governance teams and AWS Solutions Architect to migrate `sftp` and `fpts` server functionality to the cloud, ultimately removing one of the last barriers to the full Cloud Migration.

Frameworks Team: Manager – 2019–2023

- Founded, grew, and managed the Frameworks team (5→11 engineers) focused on maintaining and improving core server Frameworks across Go, Java, and Ruby.
- Positioned our team to be critical in the Cloud Migration, working at first to ensure framework compatibility with AWS EKS, and later to develop the process of migrating apps *without code changes*.
- Architected and led a migration to LaunchDarkly for 20,000+ feature flags, and worked closely with LaunchDarkly to evolve their capabilities to match our scale. This unlocked much safer flag flips, including metrics-gated changes and first-class Segments, again *without application-level code changes*.

Payments Platform: IC – 2016–2019

- Implemented backend components for Apple Pay and MasterPass integration, focusing on payment gateway communication, allowing Square merchants to support Apple Pay.
- Documented and Diagrammed the Payment Gateway structure, creating references used for years.

Shared Systems: IC – 2015–2016

- Led Go infrastructure development across Square, assuming responsibility for the Go server framework.
- Ported service-to-service retry logic, ensuring that Go applications had parity with Java applications, and allowing developers to reason coherently about retry behavior.
- Unforked a complex and messy internal version of `protobuf/protoc`, making upgrades and security patches possible.

YOUTUBE

Aug 2010—Aug 2015

Software Engineer III, Abuse Engineering

- Led development of the client attestation system to verify legitimate YouTube clients reducing automated abuse.
- Built system to score comments for similarity within a 40-minute sliding window, reducing comment abuse.
- Implemented system to identify and discount spammy subscriptions from channel counts.
- Received YouTube Engineering Code Excellence Award alongside two teammates for outstanding technical contributions.
- Ported anomaly detection code to Go, built monitoring dashboards, and implemented slideshow detection algorithms.

COX MEDIA GROUP DIGITAL

Nov 2009—Jul 2010

Manager, Software Development

- Led team of five developers participating in building a custom CMS platform for 120+ TV, radio, and newspaper websites.
- Drove technical decision to adopt Python/Django for new CMS development.
- Designed and implemented v1 of the distributed identity system.
- Established Kanban-based Agile development processes focused on flow and cycle time optimization.

(Full history at zellyn.com/resume)

SKILLS

- **Understanding complex systems:** A desire to understand drives me to investigate and document complex systems and tacit knowledge.
- **Languages:** Strong in Go, Python, Java. Ok with Javascript. Comfortable with anything.
- **Feature Flags:** Ask me anything. I have a lot of experience with home-grown solutions, with LaunchDarkly, and with what it takes to migrate from one to the other.
- **Infrastructure and Observability:** AWS, DataDog, Docker, GRPC, Kubernetes, OpenTelemetry, Protobufs, Terraform, Tilt.
- **Miscellaneous:** Bazel, CLI tools, DynamoDB, Git (+Jujutsu), Guice, Infrastructure as Code, MySQL, Documentation for humans and AI agents.
- **Specialties:** Microservices, distributed system design, observability, framework development and maintenance, Developer Experience, teaching and mentoring.
- **Long, sweeping migrations:** Much of my work in recent years has been in Developer Experience or Platforms, doing long, involved migrations, minimizing impact on product-focused developers.

INTERESTED IN

- **CRDTs:** I would love to get a chance to gain deep working experience with CRDTs.
- **AI agents:** if you're measurably improving autonomous coding in complex, tech-debt-heavy codebases, I'd love to help.
- **Feature flags:** At this point, I know enough to design a flag delivery system from scratch, and it might be fun!
- **Location:** Remote, in-office in Atlanta, or (ideally), something where both are possible.

EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY

Aug 1994—Jun 1998

BSc. in Computer Science