STEVEN SHAW
Principal Software Engineer/Architect

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Java · Scala · Kotlin · Haskell · Rust · TypeScript · AWS · GCP · Kubernetes

I design and build distributed systems that are scalable, resilient, performant, and maintainable.

As a Principal Software Engineer / Architect, I stay hands-on with code while guiding architecture for mission-critical platforms. My focus is on correctness, resilience, and developer happiness — enabling teams to ship continuously with confidence.

What I bring:

- Architecture & Delivery: lightweight agile methods, DevOps culture with a focus on Continuous Deployment and Continuous Delivery, cloud-native, microservices, Kubernetes, messaging, observability, Continuous Integration, automation
- Correctness & Reliability: shifting left with lightweight formal methods, static analysis, sophisticated property-based testing, automatic acceptance testing, infrastructure as code, and reproducible environments
- Proven impact: large-scale platforms in telecommunications, finance, and enterprise
- Team culture: nice guy and trusted mentor, raising engineering standards without ego

I thrive in collaborative environments where engineers tackle hard problems — and architecture is driven by working code, not just diagrams.

Key Technologies:

- Cloud Platforms: AWS, GCP
- Infrastructure & Orchestration: Kubernetes, AWS ECS, Serverless, Terraform, Pulumi, Helm, Nix
- Messaging & Streaming: RabbitMQ, SNS/SQS, Kafka, ActiveMQ; AMQP/ Qpid (contributor); Event-Driven Systems
- APIs & Middleware: REST, gRPC, GraphQL, legacy systems (BEA Tuxedo, CORBA)
- Application Performance Monitoring & Observability: Datadog, New Relic, Prometheus, Grafana, OpenTelemetry
- CI/CD & Automation: GitHub Actions, Buildkite, CircleCI, GitLab, Jenkins; Automated Testing, Observability, Database Migrations, Rolling Upgrades
- Programming Languages: Java, Scala, Kotlin, Haskell, Rust, TypeScript
- Paradigms: Functional Programming (FP), Object-Oriented Programming (OOP), Domain-driven Design (DDD)
- Scripting: Python, Ruby, Bash, PowerShell

Domains
Startups, Finance, Travel, Telecommunications, Enterprise

Cloud Platforms

Google Cloud
Building, deploying, and operating applications on Kubernetes with GKE and Compute Engine

Amazon Web Services
Event-driven architectures with microservices built on Lambda, ECS, SQS, SNS, RDS, Postgres, and DynamoDB

Tech Stacks

Backend/Data/Messaging
Postgres, MySQL, Redis, RabbitMQ, DynamoDB, Oracle RDBMS, Sybase, SQL Server

Java
Spring, Hibernate, Java SE, Java EE, Jakarta EE, EJB, JPA, Servlets, JSF, JSP, JUnit, Apache Camel, Liquibase, IntelliJ

Scala
Scalaz, Slick, Play

Haskell
Yesod, Persistent, Servant, Hspec, Tasty

CI/CD
GitHub, Bitbucket, CircleCI, GitLab, Jenkins

Infrastructure as Code
Terraform, Pulumi, Helm, Nix

Frontend
TypeScript, JavaScript, HTML, CSS, Ember.js, Angular, jQuery

Professional Experience

Principal Software Engineer/Architect
TLC SRC · 2003 – Present

Consulted for a diverse range of clients including Tweag, Input Output (IOHK), Juspay, Betterteam, Flight Centre, Suncorp, TNS (now Mastercard), Eiger Systems (now Experian), JPMorganChase, T-Mobile UK (now EE), Singtel Optus, and TransCore (now Transmax). Roles spanned the full software development lifecycle: coding, testing, deployment, and site reliability.

Skills: Cloud, microservices, Kubernetes, REST APIs, messaging, DevOps, functional programming, Java, Scala, Haskell, TypeScript, Python, C#, .NET, Terraform, Nix.

Principal Software Engineer
Ephox (now Tiny) · 2013 – 2014 · tiny.cloud

Building rich-text editors for the web.

Skills: JavaScript, Scala, Java, TypeScript, functional programming, microservices, REST APIs, DevOps, Postgres.

Staff Software Engineer
ADC (now CSG) · 1999 – 2003 · csgi.com

Highly customisable billing and customer relationship management solutions for the mobile telecommunications industry.

Skills: Java, C++, C, BEA Tuxedo, BEA WebLogic, Oracle RDBMS, TCP/IP.

Senior Software Engineer
Dialog (now NCS) · 1993 – 1998 · ncs.co

Software Engineer
CITEC · 1990 – 1992 · citec.com.au

Education

Master of Information Technology
Queensland University of Technology
GPA 6.0 of 7.0

Bachelor of Applied Science (Computing)
Queensland University of Technology
GPA 5.2 of 7.0

Professional Development

Kotlin for Java Developers
JetBrains, Coursera • Jul, 2023

Engineering Chapter in Technical Leadership
Folklore Ventures • May, 2023

Type-level programming with GHC
Andres Löh, Well Typed • Oct, 2019

Scalable Microservices with Kubernetes
Kelsey Hightower, Google • Feb, 2017

Real-time Stream Processing with Rx
Erik Meijer & Brian Beckman • Dec, 2012

Functional Programming Principles in Scala
Martin Odersky, EPFL • Nov, 2012

Advanced Scala
Miles Sabin, Chuusai • Oct, 2012

Compilers
Alex Aiken, Stanford • Jun, 2012

Introduction to Scala
Workingmouse • Sep, 2008