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Kousha Talebian

Software Engineer

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Areas of Expertise

Coding

Expert: Full Stack Generalist, TS/JS, Java, Node, SQL (Postgres, MySQL, DynamoDB).

Proficient: Temporal, Bash, Python, Lua/OpenResty, PHP.

DevOps & Infrastructure

Expert: Over a dozen services from prototype to GA with full observability, scaling, security, and production infrastructure in high-availability cloud/native environments.

Proficient: AWS, Docker/Kubernetes, CI/CD pipelines (GitHub Actions, Jenkins, Buildkite), monitoring stack (DataDog, Prometheus, Grafana)

AI

Built multiple voice and text agents in collaboration with OpenAI, Google Gemini and Anthropic. Contributed to development of A2A and MCP.

Personal Ventures

Zkout (2025 — Present)

Internal tool built with **Python**, **Electron**, and **OpenAI** to analyze 500+ resumes against job requirements and generate candidate summaries. Used as part of a consulting practice to deliver hiring recommendations to clients.

Common Ground (2023 — Present)

Founded a community platform to solve the friend-making problem in cities — built with **Ts.Ed**, **React**, and **Aurora MySQL**, deployed via **AWS Elastic Beanstalk** with **CloudFront CDN** and a custom CI/CD pipeline. Scaled to **2,000+** active members and **\$50K+** in ticket sales from **3,000+** event registrations.

Education

University of British Columbia

Master of Applied Science

University of British Columbia

Bachelor of Engineering Physics

Full-stack engineer with **15+ years** of experience designing, building and scaling distributed systems. I've led teams of **8+ engineers** and cross-functional orgs of **50+** to take multiple products from **prototype to GA**, serving **millions of users**.

My expertise lies in **rapid prototyping**, **performance optimization**, and architecting **resilient infrastructure** for **high-traffic**, **production-grade** environments.

Currently focused on **AI systems**, I'm actively contributing through hands-on research, hackathons, and prototyping with emerging protocols like **MCP** and **A2A**.

Twilio (Principal-level R&D)

Vancouver, Canada | Jun 2024 — Present

AI A2A/MCP Evals RAG LLM Observatory Prompt Foo K8s

- Leading modernization of Twilio's API for LLMs, tool calling, and agent-based architectures.
- Leading confidential Horizon 3 R&D initiatives under NDA, exploring future-facing AI opportunities outside Twilio's core offerings.
- Engineered integrations for OpenAI and Gemini product launches, leading to 1 filed (unpublished) patent and 3 publications.
- Designed internal LLM evals and observability tooling using LangChain, Lakera, Galileo, Firecrawl, Pinecode.
- Developed the real-time voice channel for Twilio AI Assistant using Media Stream, reduced LLM response latency by 85% (2s → 300ms).

Twilio (Principal Engineer)

Vancouver, Canada | May 2020 — Jun 2024

Temporal AWS Java TypeScript System Design Docker

- Embedded as a 'loan architect' across teams to lead new product designs and resolve cross-functional architectural misalignments.
- Designed and implemented degraded fallback for Twilio Flex, ensuring graceful service continuity under partial downtime.
- Architected next-gen execution engine for Twilio Flex with Temporal (scaling to 1k+ transitions/sec — 5x the throughput of Studio); led to US patent 2023/0351290 A1.
- Reduced Flex edge service incidents from nearly biweekly to near-zero through chaos testing, expanding observability, and hardening CI/CD.
- Scaled Flex edge service to 1k+ req/sec, outperforming API edge benchmarks by 10x in sustained throughput.

Twilio (Staff Engineer)

San Francisco, CA | Apr 2016 — May 2020

Lambda Java React OpenAPI ElasticSearch Kafka

- Launched developer platform tools (Functions, Studio, API Explorer, TwiML Bins, Debugger, CLI) featured at Twilio Signal and adopted by thousands of developers.
- Drove Twilio Studio to GA; supported GA readiness for Functions.
- Built native API and CLI for Flex's customization engine, replacing manual deploys and enabling over 70% of customers to deploy UI/workflow plugins seamlessly.
- Modernized legacy UI stack by leading migration to React and a new front-end deployment pipeline used org-wide.

iCracked (Software Engineer)

San Francisco, CA | Feb 2015 — Apr 2016

Node JavaScript Linux/Debian SoC

- Designed and shipped battery-powered diagnostic computers for field use, featuring custom Linux OS that booted twice faster than Debian.
- Built dashboard for remote monitoring, OTA updates and device management of diagnostic devices used by field technicians.

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