Amin Marashi

Senior Backend Engineer

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Authorized to work in the EU without sponsorship.

SUMMARY

Senior backend engineer with 10+ years building and operating REST and WebSocket APIs in production. At Deriv I worked on a distributed, message-driven trading backend: thin WebSocket layers delegating to RPC workers over Redis queues, handling sub-second price ticks and trades. I model data across PostgreSQL and key-value stores (Redis, DynamoDB) and work test-first (TDD) with CI/CD gates, from the design document and requirement gathering through production on-call. AWS Certified Solutions Architect – Professional.

EXPERIENCE

Senior Software Engineer · New10 — Oct 2022 – Present

Amsterdam, Netherlands

- Led the deprecation of a bulky core service, splitting it into two smaller services I designed (a company-data adapter and an aggregator) and authoring their Software Design Documents; owned the cross-team rollout and the engineers. The adapter replaced the direct KVK (Dutch Chamber of Commerce) connection with an in-house ABN AMRO source, **cutting company-data lookup costs by more than half (€100K a year)**.
- Drove the architecture approval and cross-team buy-in to break a monolithic contract service into domain-specific microservices; moved contract generation onto Salesforce (Marketing Cloud) behind a backwards-compatible layer so old and new systems run in parallel during migration, then helped roll it out.
- Gathered requirements and designed a new forbearance offer-type flow in the risk domain; settled its scope across product and engineering, and introduced integration tests to that service.
- Improved developer experience in the risk domain: made a service testable locally with serverless-offline and removed the bundler to speed up builds.
- Owned security and vulnerability remediation across the risk services; set up recurring triage and a Sentry alerts channel for monitoring.
- Added **beta publishing to the internal-package CI/CD pipeline** and a **company-wide log-anonymization process**; hosted and presented the company-wide Service Engineering Meetings.

Stack: TypeScript · Node.js · AWS Lambda · API Gateway · SNS · Terraform · Datadog

Senior Software Engineer · Fashion Cloud — Jun 2021 – Oct 2022

Amsterdam, Netherlands

- Built and maintained an in-house data ETL tool that processed and merged high-volume product data in PostgreSQL, loading the merged result into MongoDB at the final stage.
- Led the re-architecture that fixed the tool's scalability, decoupling pipeline stages into independently deployed ECS containers and owning the rollout.
- Orchestrated data pipelines with AWS Step Functions and CDK; ran on-call for the pipeline and evaluated visual ETL tools for data transformation.

Stack: TypeScript · AWS · ECS · Step Functions · CDK · PostgreSQL · MongoDB

DevOps Tech Lead · Deriv.com (formerly Binary.com) — Dec 2019 – Jun 2021

Cyberjaya, Malaysia

- Led a team of senior PostgreSQL engineers and ran round-the-clock on-call.
- Built a release manager on top of Chef and Slack **coordinating company-wide releases across hundreds of EC2 instances**.
- Led the migration of an on-prem BI stack (incl. a 2 TB reporting database) to GCP with minutes of downtime, owning the architecture and cutover; cut GCP spend by thousands of USD/month.
- Implemented database security measures and set up tested point-in-time-recovery (PITR) backups.

Stack: PostgreSQL · AWS · GCP · Docker Swarm · Chef · Airflow

Full Stack Engineer · Deriv.com (formerly Binary.com) Jan 2016 – Dec 2019

Cyberjaya, Malaysia

- Worked across a distributed, message-driven trading backend: thin WebSocket API layers delegating to RPC workers over Redis queues, handling sub-second price ticks and trades.
- Designed and implemented `@deriv/deriv-api`, a reactive abstraction over the trading WebSocket API, plus its documentation, **used across all of the company's front-end apps**.
- Proposed and built Deriv Bot, a visual auto-trading platform (Google Blockly); maintained its JavaScript-interpreter sandbox npm package.
- Wrote a Perl integration/load-testing framework (IO::Async, Future) and a streaming WebSocket→S3 uploader for KYC documents.
- Built the most successful front-end trading app on the WebSocket API (generating millions in annual revenue).
- Briefly served as Database Administrator (2019): DB hardening, replica routing, and a 5× faster integration-test suite.

Stack: Perl JavaScript WebSocket Redis PostgreSQL AWS

Full Stack Engineer · Freelance / Self-employed Mar 2012 – Jan 2016

Remote

- Built a D3.js dashboard visualizing RADIUS authentication logs streamed via DynamoDB Streams and AWS Lambda (Eleven Wireless).
- Developed AngularJS dashboards on Django/Flask REST APIs, documented with Swagger; shipped cross-platform mobile apps in Python (Kivy).
- Implemented an IETF draft for IPv6 headers in the FreeBSD kernel (C); real-time radar dashboard for SkyRadar.

System Administrator · Shiraz University Sep 2010 – May 2012

Shiraz, Iran

- Linux administrator for the CSE department; managed course-management and AD servers, and built a UI to orchestrate virtual PCs with importable snapshots.

SELECTED PROJECTS

- Lit Feed: a distributed feed-reader: a Vercel full-stack app over backend services, a MongoDB Atlas worker system that refreshes feeds asynchronously, and a separate Python engine that classifies articles async.
- cerebro: orchestrator that runs and monitors multiple Claude agents until they produce a reviewed, merge-ready pull request.
- ai-tools: small CLI utilities for AI coding-agent workflows.
- codex-proxy: Node.js proxy bridging the Claude Code CLI to OpenAI's Codex/Responses API, translating between the Anthropic and OpenAI request formats on the fly.

EDUCATION & CERTIFICATIONS

Education

B.Sc. Computer Engineering, Shiraz University (2009–2014)

Cloud DevOps Engineer Nanodegree, Udacity (2020)

Certifications

AWS Certified Solutions Architect – Professional (2025)

AWS Certified Solutions Architect – Associate (2024)

Domain-Driven Design (DDD), O'Reilly (2024)

AWS Certified Developer – Associate (2022)

SKILLS

Languages	TypeScript, JavaScript, Python, Perl, SQL, Bash
Backend	Node.js, REST & WebSocket APIs, API design, distributed / message-driven systems, queues & async processing, PostgreSQL, MongoDB, Redis, DynamoDB, data pipelines / ETL, DDD
Cloud / Infra	AWS (Solutions Architect – Professional), Lambda, API Gateway, Step Functions, CDK, Terraform, ECS/Fargate, serverless, Docker, Kubernetes, GCP
Practices	CI/CD, test-driven development (TDD), integration & E2E testing, release engineering, monitoring & alerting, on-call/SRE
Languages (human)	English (professional), Persian (native), Dutch (B2)