

Alek Schmierer

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EXPERIENCE

Web Developer / Full-Stack Developer

Sept. 2025 – Present

Tempo Software LLC

Sacramento, CA

- Built a multithreaded Java batch processing system where threads claim records via a primary key constraint used as a distributed lock, preventing duplicate processing without blocking transactions and cutting a manual workflow from **3 hours to 25 minutes** across 700+ records per run.
- Shipped a Java timesheet autofill service used by **3,000+ employees**, cutting per-employee entry time **84%** (25s → 4s) with custom line-detection logic that generates pre-validated entries.
- Traced heavy production load through **AWS CloudWatch**, and replaced unbounded California State API calls with **4 scoped REST endpoints** with schema validation, ending recurring outages.
- Drove **WCAG 2.1 Level AA accessibility** across the entire ExtJS application with one other developer, owning front-end remediation and serving as a team resource on accessibility implementation.

Software Engineering Intern

Aug. 2024 – May 2025

Living in Silico – Computational Drug Discovery

Remote

- Cut simulation runtime **35%** in a drug-discovery pipeline by parallelizing computation, scaling to **500,000+** molecular interaction calculations per screening run.
- Built a full-stack Python/Flask application driving molecular docking simulations end-to-end: library uploads, job execution, and results delivery.
- Selected by the CEO to lead a 3-person engineering team, owning system architecture, UX flow design, and RxDock integration research that set the project's technical direction.

PROJECTS

Distributed Matchmaking & Simulation Engine | *Java, Spring Boot, Redis, Nginx, WebSockets*

- Built a horizontally scalable matchmaking system using Redis queues and Nginx load balancing to route player requests across a multi-server cluster.
- Engineered a **30Hz server-authoritative tick engine** over WebSockets to drive real-time game loops, validate client inputs, and broadcast state updates.
- Distributed load evenly using atomic Redis increments and added randomized jitter to eliminate race conditions when servers claim users from a shared FIFO queue.

Multi-Game Stats Tracker | *Next.js, TypeScript, Node.js, MongoDB, Redis, Chart.js*

- Cut external API latency and database load **90%+** with a Redis caching layer fronting MongoDB in a full-stack Next.js application.
- Unified client and third-party API traffic behind one backend pipeline handling validation, caching, and persistence for consistent processing across entry points.
- Designed a weighted scoring algorithm normalizing competitive metrics across gaming platforms (Riot Games, Supercell), rendering raw API payloads as interactive charts.

TECHNICAL SKILLS

Languages: Java, Python, TypeScript, JavaScript, SQL, C++

Backend: Spring Boot, Jakarta EE (EJB, Servlets, JSP), Flask, Node.js, Next.js, ExtJS, REST APIs, WebSockets

Cloud & Data: AWS (CloudWatch, S3, IAM), MS SQL Server, MongoDB, Redis, Nginx

Tools: Git, BitBucket, JUnit, Jira, Agile/Scrum, WCAG Accessibility

EDUCATION

Arizona State University

Tempe, AZ

B.S. in Computer Science, 3.93 GPA - President's Scholarship

Aug. 2022 – May 2025

CodePath | *Technical Interview Prep (TIP102), 10-week data structures & algorithms program*

Summer 2025