

Aditya Rajesh Sawant

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Software engineer who has shipped fault-tolerant data pipelines, cloud infrastructure, and front-end systems at scale, from a 10-worker grant-ingestion pipeline to a design system serving 80M+ monthly users.

Experience

Research Assistant (Part-Time)

February 2026 — Present

SUNY Research Foundation, CUBS Lab (Prof. Srirangaraj Sethur)

- Built a fault-tolerant data ingestion pipeline scraping 3 federal grant sources (NIH, grants.gov, PCORI) with a 10-worker async Python architecture that self-throttles to avoid overloading target sites.
- Designed 3 pluggable source parsers behind a common interface with bounded back-pressure queues, keeping the 10-worker pool from overrunning downstream writes.
- Recovered funding fields on 100% of grant pages that single-call extraction missed, via an LLM pipeline (strict JSON schemas) splitting each page into 4 targeted extraction tasks.
- Achieved zero data loss end-to-end via failure-only persistence and retry-with-backoff, upserting deduplicated records into an 8-table MySQL schema.
- Eliminated a cluster-internal auth-bypass by re-architecting Apache/Shibboleth SSO and Flask into a single-pod OpenShift sidecar (loopback-bound app, exec health probes, Secret-backed creds), making the API kernel-level unreachable except through SAML SSO.

Software Development Intern

May 2026 — June 2026

Channel Core

- Kept 500+ records synced daily with zero manual intervention by integrating 6 social platforms (Instagram, YouTube, TikTok, LinkedIn, Snapchat, X) via OAuth with automatic token refresh and credential rotation.
- Building production infrastructure serving 150+ creators: architecting isolated dev/prod cloud environments on Neon with automated S3 backups and branch protection, eliminating risk of dev changes affecting live users

Software Development Intern

January 2026 — May 2026

Safety Knights

- Architected and shipped a production EHS job board currently in beta with 4,000 users, spanning an Express/Node.js API (75+ endpoints, AES-256 encryption), an Angular v17 SSR consumer app, and a standalone admin console, a service-oriented architecture across 3 independently deployable codebases.
- Designed the data layer with 4 Mongoose models using compound, geospatial, and full-text indexes, automating hourly listing expiration via node-cron to keep job data fresh without manual intervention.
- Built a full candidate pipeline with GridFS document storage, 5-stage status tracking, 3 automated email flows, and multi-axis job search.

Software Development Engineer

August 2024 — June 2025

CarWale [CarTrade Tech]

- Engineered and maintained the 'Oxygen Design System', a core library of 70+ reusable components in React and React Native powering front-end applications for 80 million monthly users, achieving a 10% bundle-size reduction on critical pages via a new counter-based hashing system.
- Led the architectural design of a dark theme for 60+ React Native components, using React Context and custom hooks to achieve seamless, no-reload theme switching.
- Cut a two-week estimate to 2 days by leveraging AI-driven automation and prompt engineering to update 250+ files.

Projects

Optimus [↗](#)

August 2026 — Present

Zero-dependency TypeScript feature flag engine with React, Angular & SSR adapters
(github.com/AdityaSawant0912/optimus)

- Designed a unified evaluation engine collapsing boolean, variant, and config flags into one core path, with deterministic id:flag:seed bucketing for consistent assignment across servers
- Built SSR support via single-evaluation snapshot hydration and published as [@useoptimus/core](#) (npm), with zero-dep architecture supporting Worker, Node, and browser runtimes

bro-cli [↗](#)

June 2026 — July 2026

Cross-shell CLI alias manager preserving shell state (cd, env activation) across invocations
(github.com/AdityaSawant0912/bro-cli)

- Built single-binary Rust CLI (bash/zsh/fish/PowerShell/cmd) that emits shell code for the wrapper to eval, letting stored aliases mutate the live shell: cd, export, venv activation persist across runs.

Skills

Programming Languages: JavaScript, TypeScript, Python, Rust, Java, C#

Frameworks: React, Node.js, Next.js, Angular, Redux

Databases: PostgreSQL, MongoDB, MySQL

Cloud & Infrastructure: Git, GitHub Actions, AWS, Docker, GCP, OpenShift, Elasticsearch

Education

Master of Science in Computer Science, University at Buffalo | GPA: 3.83/4

August 2025 — December 2026