

Sulav Raj Bista

Senior Software Engineer

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Full working rights in Australia

SUMMARY

Senior Software Engineer with 7+ years building and scaling high-traffic APIs and cloud platforms for SaaS products. Product-first engineer who owns critical modules end-to-end (architecture, reliability, and internal tooling), turning customer pain points into high-impact software. Expert in Python, Django, PostgreSQL, and AWS, with growing full-stack range across React and TypeScript.

SKILLS

Languages: Python, JavaScript, TypeScript, SQL

Backend: Django REST Framework, Flask, FastAPI, Celery, Pytest, RESTful API design, Microservices, Multi-Tenancy

Frontend: React, Next.js, HTML5, CSS, Tailwind

Data & Storage: PostgreSQL, Redis, Elasticsearch, Kafka, RabbitMQ

Cloud & DevOps: AWS (EC2, RDS, S3, Amplify), Docker, Heroku, GitHub Actions, CI/CD, Linux

Observability: Datadog, Sentry, Metabase, Retool, Fullstory

Security: OAuth 2.0, JWT, 2FA/MFA, RBAC, Auth0

Practices: Agile/Scrum, On-call, Incident Response, Code Review, Mentoring, Technical Interviewing, SLO/SLA Ownership

PROFESSIONAL EXPERIENCE

Senior Software Engineer, Paylocity

Jul 2021 – Mar 2026 | Remote

- Served as technical owner of the Vendor Management module, a core domain spanning authentication, onboarding, tax compliance, and payments, and as the single point of escalation across engineering, product, support, and fraud teams.
- Architected a 2FA authentication framework using Auth0, Twilio, and Google Authenticator that mitigated vendor account fraud and saved an estimated \$1M+ annually in fraud losses.
- Sustained 99.99% API success rate and p95 latency under 700ms across the Vendor Management module under peak production load, owning module-wide SLOs end-to-end.
- Designed asynchronous tax validation microservices for US and international markets via third-party APIs and webhooks, reducing compliance penalties by an estimated \$100K+ annually.
- Built a self-serve vendor onboarding flow using Django and OneSchema, cutting onboarding time by 86% and eliminating recurring manual onboarding toil.
- Implemented Redis-backed distributed caching that improved API throughput by 45% and absorbed peak traffic without scaling infrastructure spend.
- Built internal tooling adopted across Engineering, Customer Support, and Fraud Management, including a vendor impersonation tool, bulk-onboarding tool, and 2FA-reset workflow, eliminating dozens of weekly engineering interrupts.
- Grew test coverage by 54% through Pytest suites and legacy test refactoring, raising deployment confidence across the squad.
- Established proactive observability across Datadog, Metabase, and Sentry with dashboards, monitors, and alerts for module health, feature adoption, and SLO breaches; authored weekly Quality Reports correlating endpoint performance, 5xx rates, Sentry incidents, and Fullstory sessions to drive prioritisation, reducing critical incident MTTR by 40%.
- Reviewed code across squad and adjacent teams for any change touching the module, consulted on cross-team design, mentored engineers, conducted technical interviews, and authored engineering specs and roadmap documents.

Tech: Python, Django REST Framework, PostgreSQL, Celery, Redis, Kafka, Elasticsearch, Heroku, React, Auth0, Datadog, Sentry, Pytest

Lead Software Developer, Revv Inc

Nov 2020 – Jul 2021 | Lalitpur, Nepal

- Built and scaled a high-traffic Flask backend for dynamic ad publishing portals on AWS, handling peak concurrent request loads across multiple client portals.
- Developed real-time analytics dashboards that improved client revenue tracking and supported data-driven decision-making.
- Designed a Service-Oriented Architecture (SOA) with optimised inter-service communication, improving system modularity and fault tolerance.

Tech: Python, Flask, PostgreSQL, Node.js, React, Prisma ORM, AWS

Software Development Engineer II, Fyle Inc [↗](#)

Feb 2019 – Oct 2020 | Bangalore, India

- Improved OCR receipt classification accuracy from 35% to 95% through model tuning and pipeline redesign, enhancing UX and reducing manual processing overhead.
- Designed and launched a secure ACH payment service integrating third-party APIs and webhooks, processing significant transaction volumes with a micro-deposit payee verification framework.
- Engineered automated statement parsers for Visa and Amex transactions delivered over SFTP, processing thousands of financial records with high reliability.
- Scaled high-traffic REST APIs through targeted database indexing and query optimisation, reducing average response times by 40%.

Tech: Python, Flask, Java Dropwizard, PostgreSQL, AngularJS, Docker, Kubernetes, RabbitMQ, AWS

Software Engineer, Odessa Technologies [↗](#)

Jun 2018 – Jan 2019 | Bangalore, India

- Delivered client-facing features and resolved production issues on a legacy financial platform, collaborating closely with QA and product teams within Agile sprint cycles.

Tech: C#, ASP.NET Framework, MS SQL Server, LINQ

PROJECTS

Pantry Run [↗](#), Real-Time Collaborative Shopping List PWA

2026

- Built a real-time, offline-first PWA (Next.js, React, Supabase) for households, with optimistic updates and an offline IndexedDB write queue that reconciles via last-write-wins on reconnect; in daily use by several households.
- Engineered timezone-correct recurring reminders using pg_cron and an RRULE subset in Postgres, keeping schedules accurate across daylight-saving transitions.
- Implemented a three-tier item categoriser (per-household overrides → ~1,000-keyword dictionary → rate-limited, cached Gemini LLM fallback via a Supabase Edge Function) to keep categorisation instant and near-free.

Tech: Next.js, React, TypeScript, Supabase (PostgreSQL, Realtime, Auth, Edge Functions), Tailwind CSS, Vercel

ImagePal [↗](#), Privacy-First Image & PDF Toolkit

2026

- Designed and shipped a Next.js toolkit with 9 production tools spanning image compression, format conversion, resizing, and PDF workflows, deployed as a fully static export on Cloudflare Pages.
- Architected an off-main-thread compression pipeline using Web Workers + OffscreenCanvas with zero-copy ImageBitmap transfer, parallelised batch jobs, keeping the UI responsive.
- Implemented client-side PDF workflows using pdfjs-dist and pdf-lib, processing documents up to 100 MB without backend infrastructure.
- Designed the entire system around in-browser processing, where image bytes never reach a server, with no accounts, cookies, ads, or third-party trackers (only cookieless Cloudflare analytics) and offline-capable operation after first load.

Tech: Next.js, TypeScript, Tailwind CSS, Zustand, Web Workers, OffscreenCanvas, pdf-lib, pdfjs-dist, Cloudflare Pages

EZTaxNepal [↗](#), Municipal Advertisement Tax Management SaaS

2025

- Independently designed, built, and launched a production SaaS platform used by a private tax collection firm to manage advertisement tax tracking, billing, and revenue forecasting on behalf of the municipality.
- Engineered Django REST Framework backend with JWT-based RBAC, cursor-based pagination for high volume record sets.
- Implemented client-side image compression in React before presigned S3 upload for advertisement photos, reducing storage costs and upload latency while creating the advertisement entry.
- Built streaming data exports for advertisement records, allowing users to efficiently export large datasets without blocking application servers.
- Deployed on AWS EC2 with Docker and Nginx, React frontend via AWS Amplify, and PostgreSQL on RDS, with GitHub Actions CI/CD pipelines maintaining consistent release quality.
- Re-platformed 18 months post-launch from AWS (EC2/Docker/RDS/Amplify) to a lean self-hosted stack (Hetzner + systemd/Gunicorn, self-hosted PostgreSQL, Cloudflare), cutting monthly running cost to a fraction with no loss of functionality.

Tech: Django REST Framework, React, PostgreSQL (RDS), AWS EC2, AWS Amplify, S3, GitHub Actions

EDUCATION

Bachelor's in Information Science and Engineering,

2014 – 2018 | Bangalore, India

Ramaiah Institute of Technology (GPA: 8.73/10) [↗](#)

- Awarded full Merit Scholarship by Government of India on academic merit.
- Published research on "Predicting the Priority of Bug Reports Using Classification Algorithms" [↗](#) in IJCSE journal.