

RITESH KUMAR SINGH

Lead Full Stack Developer | Backend & Platform Engineering | Python · Django · FastAPI · PostgreSQL

Delhi NCR · +91-9504540916 · riteshksingh.min18@itbhu.ac.in · <http://linkedin.com/in/riteshkumarsingh26/> · <https://portfolio.riteshkumarsingh.in>

SUMMARY

Backend and platform engineer with 3.5+ years building EasyInsights, a multi-tenant marketing-attribution SaaS, from its first version to production. Designed the Events & Audiences platform that sends first-party conversion data for ~60 live clients to Meta, Google Ads, and LinkedIn at more than a 95% delivery rate. Run production on an \$8/month 1 GB server with zero infrastructure outages since Feb 2024. Report to the CEO, own architecture and production, and lead the product and DevOps teams.

SKILLS

Backend: Python, Django, FastAPI, REST APIs, WebSockets, asyncio, RabbitMQ, PostgreSQL, DuckDB

Architecture: multi-tenant SaaS, event-driven pipelines, data ingestion, deduplication, system design

Platform: Linux, Nginx, systemd, Bash, Make, Ansible, GitHub Actions, CI/CD, DigitalOcean, monitoring and alerting

Integrations & AI: Meta Conversions API, Google Ads API, LinkedIn, Shopify apps, CRM APIs, Gemini Live API, Claude API

Also: React, JavaScript; Android, iOS, React Native and Flutter SDKs

EXPERIENCE

Lead Full Stack Developer — EasyInsights, Delhi NCR

Feb 2025 – Present

- Own architecture, code reviews, releases, and production for ~60 live client workspaces; lead a team of 4 and report to the CEO.
- Built incident alerting that stopped 5 incidents from reaching clients in its first 2 months: an internal FastAPI service in the VPC posts errors to Telegram, and a 5-minute check flags abnormal task volume or run time.
- Automated per-client workspace setup (2 DigitalOcean servers per client) with built-in checks of every server and configuration, replacing ~15 minutes of manual work per client and the setup gaps it caused.
- Wrote shared Python packages used across ~15 services: a RabbitMQ task framework with graceful shutdown and manual acks, a mail service, and a PostgreSQL database layer.
- Fixed out-of-memory crashes on the worker and PostgreSQL servers (per-message module reloads; `work_mem` × connections) and a FastAPI throughput regression caused by threadpool limits.
- Built voice AI agents that place real phone calls by streaming telephony audio to the Gemini Live API over FastAPI WebSockets.

Lead Full Stack Developer — ET Medialabs (deployed at EasyInsights), Delhi NCR

Jun 2023 – Jan 2025

- Designed the architecture and database of Events & Audiences (Jan 2024), which became the company's core business after its 2024 pivot; led it through 3 rebuilds. It collects first-party data via pixels, SDKs, custom JavaScript, CRM webhooks, and backend integrations, stores raw events so none are lost, deduplicates them, and delivers conversions to ad platforms within ~6 minutes. One client sent 5.6M+ events and 400K+ leads in 30 days.
- Moved production from a 4 GB to a 1 GB server (\$24 → \$8/month) with zero infrastructure outages since Feb 2024. A build server compiles ~15 repositories into a self-hosted PyPI-style registry, and a script rebuilds the app server in about 5 minutes.
- Built a custom embedded Shopify app for tracking in about 3 weeks; it onboarded ~35 Shopify brands in 5 months (Aug–Dec 2024), a segment the company could not serve before.
- Found why the app failed to load in a client demo: 50+ API calls fired at once and stalled at the browser's 6-connections-per-host limit. Rebuilt app loading shell-first with lazy loading; the failure has not recurred. Then moved to lead a 3-person product team.
- Built the company's first mobile tracking SDKs (Android, iOS, React Native, Flutter) with deep links and install-referrer attribution, published on npm and pub.dev.

Software Engineering Intern — ET Medialabs (deployed at EasyInsights)

Feb 2023 – May 2023

- Customised and deployed the open-source Misago (Django) forum as the EasyInsights community forum; it ran in production for about 2 years.

Intern — Atria

May 2022 – Jul 2022

- Consultant intern on two BI data-migration projects: wrote and ran test scripts, validated migrated data, and built test beds.

EDUCATION

Indian Institute of Technology (BHU), Varanasi — Integrated Dual Degree (B.Tech + M.Tech), Mining Engineering, CGPA 8.32/10
2018 – 2023

DAV Public School, Koyla Nagar, Dhanbad — Class X with 10/10 CGPA and XII with 91.8%