

Utkarsh Jaiswal

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Summary

Backend engineer building multi-tenant systems with TypeScript/Node.js and PostgreSQL. Background in grant compliance, talent search, tax-filing integrations, and Stripe/Razorpay payments and reconciliation.

Skills

Data	PostgreSQL (JSONB), MySQL, Elasticsearch, data modeling, query optimization, ETL/data migration
Languages	TypeScript, JavaScript, Python, PHP, SQL, Bash
Backend	Node.js, NestJS, Express.js, TypeORM, REST API design
Cloud & Delivery	AWS (ECS, SQS, SES, EventBridge), Docker, GitHub Actions, CI/CD, Linux, Git
Concepts	Multitenancy, API security, rate limiting, RBAC, asynchronous processing, audit trails, payment reconciliation

Experience

Shuru, Software Development Engineer II (Mumbai)

Jul 2025 – Present

Client: Balio (City Data Service)

- Own backend architecture for a **NestJS/PostgreSQL V2 platform** replacing a 20-year grant and housing-compliance system used by **24 California cities and counties**; the legacy estate spans **38 databases** and **142K compliance and expense reports**.
- Built a **Python migration tool** with per-jurisdiction mappings for 200–500-field legacy records; validated budgets and required fields, incorporated client Excel corrections, and emitted JSON for V2 imports while keeping production V1 read-only.
- Designed a **JSONB-backed form engine** so agencies configure conditional fields and tenant overrides without code deployments; preserved grant amendment **audit trails** with revision snapshots and field-level diffs.
- Designed **RBAC authorization** with per-resource CRUD/APPROVE/REJECT permissions, enforced through route guards and query-level tenant scoping to restrict cross-agency access.
- Moved notifications and program-window recomputation off request paths using **SQS, SES, and EventBridge-triggered ECS tasks**; operated the migration dashboard on ECS Fargate with EFS artifacts and Secrets Manager credentials.

WhiteCrow Research, Software Engineer (Mumbai)

Jan 2022 – Mar 2025

- Owned backend development for a talent-intelligence platform for three years, designing **REST APIs**, data models, and client integrations.
- Optimized **Elasticsearch queries and database operations** across a **4 TB JSON corpus** supporting talent search.
- Built an **anti-scraping rate limiter** with per-client request budgets and Fibonacci-escalating lockout windows for repeat offenses within 24 hours.
- Automated application deployments to **AWS instances** through deployment scripts.
- Implemented **Google login** for user authentication and MySQL events for scheduled database maintenance.

Fisdom (Now Part of Groww), Software Engineer (Jaipur)

Apr 2021 – Dec 2021

- Implemented **E-Return Intermediary (ERI) client registration** for income-tax filing and integrated **eMitra and CSC**, enabling assisted filing through government partner channels.
- Built a **Python Form 26AS parser** to automate taxpayer-data extraction, contributing to an **18% increase in ITR filings**; secured the PHP Codelgniter portal with CSRF protection.

Lademoda, CTO (Remote)

Jul 2020 – Mar 2021

- Built the **Node.js backend and MySQL data layer** for an e-commerce platform, covering checkout, transactional receipts, and fulfillment workflows.
- Integrated **Stripe and Razorpay** as parallel payment providers and built payment processing and reconciliation flows.

Bid And Win, Software Engineer (Contract) (Remote)

Jun 2019 – Jun 2021; concurrent

- Built **Stripe checkout and payment integration** under PCI compliance constraints.
- Set up **CI/CD with GitHub Actions and Docker** to automate application deployments.

Education

B.Tech., Computer Science and Engineering, Dr. A.P.J. Abdul Kalam Technical University

2016 – 2020