

Tharun Sridhar

Backend Engineer | SDE | Bengaluru, India

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SUMMARY

Backend engineer (B.Tech CSE, 2026) building and deploying REST APIs and backend services in Django and FastAPI: JWT authentication and role-based access control, PostgreSQL data modeling with row-level locking for concurrency-safe workflows, Redis caching, and Celery background processing. Comfortable owning a service end to end, from schema design through Dockerized deployment.

TECHNICAL SKILLS

Languages: Python, TypeScript, SQL, Java

CS Fundamentals: Data Structures & Algorithms, OOP, DBMS, Operating Systems, Computer Networks

Backend: Django, Django REST Framework, FastAPI, Node.js, Express, REST API Design, JWT Authentication & RBAC, SQLAlchemy, Alembic, Celery, django-filter, drf-spectacular

Databases: PostgreSQL, SQLite, Redis

DevOps & Cloud: Docker, GitHub Actions (CI/CD), AWS (EC2, ALB, VPC, IAM), Railway, Git, Linux

Testing: pytest, pytest-django

Frontend: React, HTML, CSS

EDUCATION

Vellore Institute of Technology

Bachelor of Technology in Computer Science

Vellore, India

May 2026

PROJECTS

Inventra (*Team Project – Lead*) | *Django, DRF, PostgreSQL, Redis, Celery, JWT, Docker* [GitHub](#) | [Live Demo](#)

- Led a team building a role-based inventory system (Admin/Manager/Employee JWT RBAC, rate limited per scope); personally built the JWT auth (access + DB-blacklisted refresh tokens) and the REST API layer across 13 routers.
- Enforced an append-only stock ledger two ways (no write route registered, plus Django Admin edits hard-disabled) and made purchase/sale completion idempotent: a retried request returns 409 with zero side effects instead of double-applying a stock change.
- Closed a concurrency bug with PostgreSQL row-level locking (`select_for_update`): Locust testing at 40 concurrent users showed 16 silently lost stock updates with zero HTTP errors when unlocked, 0 when locked.
- Redis-cached reports with version-counter invalidation (cache hits collapse 9 queries to 1, verified via query-count assertions) and Celery background jobs for async invoices, low-stock alerts, and nightly reconciliation; deployed on AWS behind an ALB with GitHub Actions CI running pytest and ruff.

Mr Fix My Home | *Node.js, TypeScript, Express, PostgreSQL, Prisma, React, Docker* [GitHub](#) | [Live Demo](#)

- Built a local-services booking platform (Customer/Provider/Admin roles) that prevents double-booking in three layers: a server-side slot recheck, a per-provider PostgreSQL advisory lock, and an exclusion constraint so the database itself rejects overlapping bookings.
- Race-tested it: 8 simultaneous requests for one slot yield exactly one 201 and seven 409s; deadlock victims are retried, **Idempotency-Key** makes client retries safe, and status changes use compare-and-set with a full history table.
- Stored availability as local minutes plus IANA timezone for DST-safe slots; shipped a 62-test Vitest/Supertest suite, OpenAPI docs, and GitHub Actions CI, deployed on Render with capacity caps and rate limits.

Finvoro | *Django, DRF, PostgreSQL, JWT, pytest* [GitHub](#)

- Built a personal finance management API (accounts, categories, transactions, budgets, reports) on Django + DRF and PostgreSQL, with every endpoint JWT-authenticated and scoped to the authenticated user.
- Implemented filterable, paginated transaction endpoints (category, account, type, date range) and computed account balances and budget totals directly from transaction data rather than storing duplicated aggregates.
- Documented the full versioned API (`/api/v1/`) with drf-spectacular (Swagger/ReDoc) and covered it with a 48-test pytest/pytest-django suite (0 failures, 96% coverage of app code); deployed via gunicorn and whitenoise, no Docker or paid infra needed.

OPEN SOURCE CONTRIBUTIONS

django-guardian/django-guardian – fixed AUTO_PREFETCH permission bug for direct-permission models #1030

drkrillo/good-first-issues – CI smoke test for the action itself #172

Ayorinha/ayorai-vision-intelligence – restored corrupted CI workflow YAML #26

Ayorinha/ayorai-vision-intelligence – MCP least-privilege regression tests #23

CERTIFICATIONS

AWS Solutions Architect Associate (SAA-C03) Specialization

Packet

ACHIEVEMENTS

5★ HackerRank: Problem Solving, Java, Python, SQL

[hackerrank](#)

250+ LeetCode problems solved

[leetcode](#)