

ELISHA G JOY

Backend Engineer

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SUMMARY

Backend engineer with 2.5 years of Python and Django work, mostly on systems that need to stay up under heavy load. At Eduport I built the exam service that runs timed exams for thousands of students (30K+) at once, and the question bank behind every exam on the platform. I also build React frontends, and I built and still support a care home management SaaS for a UK client. Before software, I spent two years as an MEP engineer on building sites in Bangalore.

WORK EXPERIENCE

Backend Engineer Aug 2025 - Present
Eduport, Kozhikode

- Built the Priority Exam service for timed exams with thousands of students (30K+) online at once. Cached auth tokens in Redis and pre-warmed them before each exam, so logins never hit PostgreSQL.
- Buffered answer submissions into bulk database writes, handled out-of-order cases like a submit arriving before its start record, and load-tested the flow before launch.
- Set up PostgreSQL read replicas with Django database routers, with fallback to the primary and kill switches set from the environment.
- Built the Question Inventory backend: review and approval flow, filters, full-text search and dashboard stats. Made slow pages fast by removing N+1 queries and adding indexes.
- Moved the exam engine onto the new question bank: marking schemes, multi-answer MCQs, numeric answers, ranks.
- Worked on the mentor app, Razorpay autopay fixes, and server-side PostHog events sent through Celery.

Freelance Full-Stack Developer May 2024 - Present
Entasko, Manchester, UK (Remote)

- Built a care home management SaaS end to end with React, Django and PostgreSQL on AWS (eu-west-2) behind Cloudflare. Now handle its maintenance and support.
- Built a form builder with default templates and custom fields, and Asset Registry and Logbook modules where a form submission creates follow-up tasks automatically.
- Added monthly PDF reports that care homes use for audits.

Technical Trainer Jun 2025 - Aug 2025
Experts Skillmerge Hub, Kochi

- Taught Python, Django and machine learning at Jai Bharath College and guided student project teams.

Technical Support & Promotions Aug 2024 - Jan 2025
Edex Foundations, Kochi

- Wrote Python scripts for data scraping, email outreach and lead tracking, replacing manual work for the sales team.

Product Engineer Intern Apr 2023 - Apr 2024
Entri, Kochi

- Built internal tools used by Entri staff, in Django and FastAPI.
- Entri Gratitudes: a peer-appreciation app on FastAPI and MongoDB, with Slack sign-in and JWT, Memcached for email autocomplete, shipped in Docker.
- Entri Lunch: daily lunch polls, headcounts and check-in, with an admin panel to schedule polls.

MEP Engineer 2020 - 2022
Trinity MEP Solutions, Bangalore

- Read and checked mechanical, electrical and plumbing drawings, and sorted out on-site issues before they held up work.
- Ran daily inspections and quality checks, kept site reports and checklists, and helped test and hand over MEP systems.
- Handled material take-offs and procurement requests so crews weren't left waiting. Got the Best Employee award for July.

SKILLS

Languages	Python, SQL, JavaScript
Backend	Django, Django REST Framework, FastAPI, Celery, RabbitMQ
Databases	PostgreSQL (read replicas, indexing, full-text search), Redis, MongoDB, Memcached
Frontend	React, HTML, CSS
Infra and tools	Docker, Nginx, AWS, Cloudflare, Git, PostHog, Sentry

WRITING

Why WSGI Matters for Python Devs? (Medium, Jul 2025, under my pen name code.Eshwaran). What a web server does and how WSGI connects it to Django.

EDUCATION

BE, Mechanical Engineering, Mar Ephraem College of Engineering & Technology (Anna University) 2016 - 2020