Harshiv Thakkar

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WORK EXPERIENCE

Sahajanand Technologies Private Limited · Surat, India
Software Developer - Med Scan and 3 D Print Connect · *July 2024 – Present*

- Developed and optimized over 25 business-critical **Django REST Framework** APIs, achieving consistent **sub-300ms** latency and implementing a robust, role-based access control system.
- Built 10+ responsive screens for the **Flutter** mobile app, ensuring seamless API integration and effective state management with **Riverpod**.
- Dramatically improved search accuracy by implementing PostgreSQL **trigram similarity** indexing, which **reduced the search miss-ratio by 40%** across a dataset of 5 million patient medical records.
- Engineered a fault-tolerant architecture to handle remote job uploads and network failures, successfully integrating three distinct families of 3D printers into a unified monitoring dashboard

Software Developer Intern · *Jan 2024 – July 2024*

- Architected a real-time monitoring backend using **Express.js** to orchestrate a farm of 20+ industrial 3D printers, processing live data streams ingested from custom Raspberry Pi (SBC) controllers.
- Constructed user-friendly, responsive dashboard with **React** and **Tailwind CSS**, using **React Query** to efficiently manage server state for visualizing live/past jobs and generating custom invoice reports with 15+ filters.
- Managed the end-to-end deployment on an in-house server, configuring **Nginx** as a reverse proxy and ensuring high availability with **PM2** process management and automated **MySQL** backups.

EDUCATION

Indian Institute of Information Technology, Surat · Surat, India
Bachelors in Electronics and Communication Engineering; CGPA: **8.96** · *Dec 2020 - July 2024*

PROJECTS

- **Mahalaxmi Matching** (mahalaxmi-matching.com):
  - Crafted an under **30-second** checkout flow featuring real-time cart updates and multi-factor authentication using **Twilio** & **Zoho Mail**. Integrated **Google Address Autocomplete** for ease and correctness of adding shipping addresses and ensured payment reliability with **Razorpay** and webhook verification and ability to apply coupon for discounts.
  - Developed an admin panel to automate addition of products and the entire order fulfillment workflow, including one-click invoice/label generation and shipment creation via the **Shiprocket** API, successfully tested across **5 locations.**
  - Achieved a **sub-1s** initial load time and implemented a full SEO strategy (dynamic metadata, 'robots.txt', 'sitemap.xml') by architecting a modern frontend utilizing **Next.js (SSR/ISG)**, **Redux Toolkit** , **Amplify's CDN**, and **Lambda@Edge**.
  - Implemented a **CI/CD pipeline** (GitHub, CodeBuild, CodeDeploy) to automate deployments of a **Django REST Framework** API to a secure, scalable **AWS ECS** infrastructure—featuring an **ALB** and a cost-optimized **ASG** with Spot/Reserved instances—achieving consistent **sub-250ms** response times.AWS Lambda and EventBridge for **CRON Jobs**.
  - Enhanced system reliability by automating backend processes using **Celery** for task retries and hardening security using **AWS Secrets Manager**, Django Admin 2FA and validated performance for **100+ concurrent users** with **JMeter**.

- **API Copilot**:
  - Engineered an intelligent **VS Code extension** by creating a **LangChain** pipeline to **vectorize and index** API specifications into a local **LanceDB** vector store.
  - Implemented key AI-driven features including **context-aware refactoring**, **snippet generation**, and namespaced autocompletion (`api.endpoint`) to significantly accelerate API development.

SKILLS

- **Languages**: C++, Java, Python, JavaScript/TypeScript, SQL
- **Frameworks & Tools**: Next.js , Django, React, Redux Toolkit, Tailwind CSS,AWS , Express.js, Docker, Celery, Vim
- **Databases**: PostgreSQL, MySQL, Redis, Prisma ORM , MongoDB

ACHIEVEMENTS

- **AWS Certified Cloud Practitioner**: strong foundation in cloud architecture, security, billing, and deployment.
- **Competitive Programming**: Solved **800+** problems across LeetCode & GeeksforGeeks.
- **Innovation Grant**: Receieved over 1 lakh Rs. for project **IoT on Rover** incubated by SSIP Cell, Gujarat.

LEADERSHIP & EXTRACURRICULAR

- **Secretary, Electronics & Robotics Club, IIIT Surat**: Led a 20-member team; organised 5+ flagship workshops/events.
- **Technical Lead at Spring Fiesta**: Managing creation , budegting and operation for 7 + events increasing participation by 50%.