





Kshitiz Agrawal

 Kshitiz1403 |  kshitizagrwal |  kshitizagrwal@outlook.com |  +91-9829970771

EDUCATION

Vellore Institute of Technology, Bhopal

B.Tech in Computer Science Engineering & Specialisation in AI & ML; CGPA: 8.4

Bhopal, India

Aug '20 - Jul '24

EXPERIENCE

FinBox Backend Engineer

Jan'24 - Present (Full Time), Oct '23 - Dec'23 (Intern) | Bengaluru

- Worked on developing **Octopus**, a niche **GoLang gateway** as a microservice for other services operating at 150k requests daily.
- Implemented features like **JSON transformation, payload encryption/decryption, webhooks, async processing, polling, authentication.**
- Owned and developed a **front-end dashboard** from scratch for Octopus called **OctoDash** for managing and onboarding services.
- Worked on **Terraform, GitHub Actions** for deployments on OctoDash.
- Worked on creating customisable user journeys using a **JSON configuration** compliant with **serverless-workflows specs** along with **Temporal workflows** to ensure **fault tolerant** journeys.
- Implemented a **SWF JSON parser** (called **Road-Runner**) which parses the JSON and executes **temporal activities.**

AirBlack Backend Intern

Jul - Sep '22 | Remote

- Played a pivotal role in development of purchasing **top-up plan flow**; covering **payment, notifications, and invoices**
- Contributed to a code base for setting up **cron jobs** for timely push notification reminders to users
- Enhanced internal tools for platform experts, optimizing operational efficiency and team productivity

PROJECTS

Online Code Playground with Realtime Collaboration

May - Jun '22

- Created a full-stack application which allows users to **write and run code directly in their browsers**
- Allows seamless **collaboration** with peers in **real-time** across 4 languages (**NodeJS, Python, C++, Java**)
- Uses the **Docker Engine API** to build **containers on-demand** to allow code compilation in an **isolated** environment
- Supports conflict free editing using **CRDT** algorithm with auto-completion using **language server protocols (LSP)**
- **Tech Stack:** Typescript, Nodejs, MySQL, Docker, Reactjs, WebSocket, Redis, Monaco, YJS

Links: LIVE: ide.kshitizagrwal.in REPOSITORY: github.com/Kshitiz1403/Collaborative-IDE

Eco Walk organizer with TOTP based encryption

Nov - Dec '22

- Developed **app** and **hardware** inspiring litter collection during walks for a cleaner environment
- App guides users to nearest smart trash bins along their way, suggesting optimal paths for disposal
- Developed a hardware using inbuilt **sensors** and **displays**, operated by an **arduino**
- Utilized **TOTP key generation** to encrypt a **JWT token**, renewed every **30 seconds** enabling offline use
- **Tech Stack:** Nodejs, React Native, Embedded C, Redux, MongoDB, Redis, Google Direction API

Links: DEMO: youtu.be/HUsWpg-VFks?t=745 REPOSITORY: github.com/Kshitiz1403/Sudarshan

TECHNICAL SKILLS AND INTERESTS

Languages: GoLang, TypeScript, Javascript, Java, Python, C++

Developer Tools: Docker, Temporal, Kafka, Nginx

Technologies: NodeJS, ReactJS, React Native, GraphQL, Redux, WebSocket

Cloud/Databases: PostgreSQL, MySQL, MongoDB, Redis, AWS, Azure, GCP, Oracle Cloud

Areas of Interest: Distributed Computing, Database Internals and Computer Science Internals

ACHIEVEMENTS

Guest Speaker at College Fest

Feb '23

Delivered an impactful web-dev roadmap talk to 400+ attendees in a flagship event

GDSC Club

May '22

Judged HackDSC web projects, assessing 100+ participants

Competitive Programming

Jan '22

266/10534 (Top 2%) Scaler Academy Contest