

# Satvik Chandra

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## EXPERIENCE

### Intern Trainee

June 2025 – Present

*Indian Institute of Technology Bombay*

Mumbai, India

- Developed a custom GIS-based public transport accessibility tool in Python to automate spatial accessibility analysis based on road and metro networks.
- Built core logic using graph data structures, Python dictionaries, and min-heaps (priority queues) to implement optimized routing and multi-point reachability analysis.
- Used Qt Designer to create a full-featured user interface with dropdowns, layer selectors, and travel time parameters for flexible user input.
- Built a full-stack web app using React.js and FastAPI to gather, store, analyze urban commuter choices, and save the survey responses.

## PROJECTS

### **streamforge** | *Bun, TypeScript, Express, Docker, Nginx, PostgreSQL, Redis, RabbitMQ*

[GitHub](#)

- Developed a scalable backend for adaptive HLS/DASH streaming.
- Implemented secure upload, playback, and segment delivery via signed URLs, JWT authentication, and role-based access control.
- Automated video transcoding and manifest generation through RabbitMQ job queues.
- Optimized response times with Redis caching and Nginx proxying for video assets and API endpoints.
- Implemented Zod input validation and structured logging with Pino.

### **TsTurbo** | *Node.js, TypeScript, HTTP, File Handling, TCP Sockets*

[GitHub](#)

- Built a Node.js and TypeScript web server from scratch.
- Implemented HTTP Range Requests and Chunked Transfer Encoding.
- Used non-blocking file handling for efficient data streaming.
- Designed custom request parsing, header validation, and error handling.

### **Limktree** | *Next.js, PostgreSQL, Prisma, Tailwind CSS, Cloudinary, Recoil, Zod, Typescript*

[GitHub](#)

- Created a platform for sharing multiple links via a single customizable URL.
- Integrated Next.js for frontend and server actions.
- Employed Cloudinary for image uploads and Tailwind CSS for styling.
- Utilized Zod for input validations and JWT for authentication.
- Managed state using Recoil.

## EDUCATION

### **Graphic Era (Deemed to be University)**

*Master of Computer Applications — CGPA - 8.55*

Uttarakhand, India

June. 2022 – June 2024

### **Graphic Era (Deemed to be University)**

*Bachelor of Computer Applications — CGPA - 8.61*

Uttarakhand, India

June. 2019 – June 2022

## TECHNICAL SKILLS

**Languages:** Python, C/C++, SQL (Postgres, MySQL), NoSQL (MongoDB, Redis), JavaScript, Typescript, HTML/CSS

**Frameworks:** React, Next.js, Tailwind CSS, shadcn/ui, Node.js, Express, FastAPI, Elysia.js, Hono, RESTful APIs,

GraphQL

**Developer Tools & Platforms:** Linux, Git, Docker, Postman, VS Code, PyCharm

**Libraries:** pandas, NumPy, Matplotlib

## CERTIFICATIONS

### **Google Data Analytics**

*Google Data Analytics Professional*

March 2025

[Certificate](#)