

Satvik Chandra

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EXPERIENCE

Project Associate

September 2025 - Present

Mumbai, India

Indian Institute of Technology Bombay

- Built a full-stack survey platform using TypeScript, React, FastAPI, enabling dynamic multi-step questionnaires.
- Designed and developed a FastAPI-based backend for a dynamic survey platform with clean architecture.
- Implemented a session-based response system, generating unique session IDs and tracking per-session CSV files.
- Built a robust CSV storage engine that dynamically adds new columns when new survey fields appear, ensuring schema flexibility.
- Developed automated PyQGIS Processing Toolbox scripts to streamline spatial analysis workflows.
- Optimized spatial processing loops, reducing runtime from 8 hours to 3 hours for large metro-road datasets.

Intern-Trainee

June 2025 – September 2025

Mumbai, India

Indian Institute of Technology Bombay

- Automated public transport accessibility analysis by building a GIS tool in Python leveraging road and metro network data.
- Created a flexible user interface with Qt Designer featuring dropdown menus, layer selectors, and configurable travel time parameters.

PROJECTS

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

[GitHub](#)

- Engineered a scalable backend for adaptive HLS/DASH video streaming platforms.
- Built secure upload and playback systems with signed URLs, JWT-based authentication, and role-based access control.
- Automated video transcoding and playlist manifest creation using RabbitMQ job queues.
- Enhanced performance and reduced latency with Redis caching and Nginx proxy caching for API and video content delivery.
- Integrated Zod for input validation and Pino for structured logging.

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

[GitHub](#)

- Developed a high-performance web server from scratch in Node.js with TypeScript.
- Supported HTTP Range Requests and implemented Chunked Transfer Encoding for efficient data streaming.
- Utilized non-blocking file handling for optimal throughput and built custom error handling and request parsing.

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

[GitHub](#)

- Created a platform to share multiple links through customizable URLs using Next.js with server actions.
- Integrated Cloudinary for image hosting and optimized styling via Tailwind CSS.
- Applied Zod for robust input validation and JWT for secure authentication.
- Managed application state effectively with Recoil.

TECHNICAL SKILLS

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

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

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

Libraries: pandas, NumPy, Matplotlib

EDUCATION

Graphic Era (Deemed to be University)

Uttarakhand, India

Master of Computer Applications — CGPA - 8.55

June. 2022 – June 2024

Graphic Era (Deemed to be University)

Uttarakhand, India

Bachelor of Computer Applications — CGPA - 8.61

June. 2019 – June 2022

CERTIFICATIONS

Google Data Analytics

March 2025

Google Data Analytics Professional

[Certificate](#)