

Suraj B M

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About

I am a proficient fullstack web developer with a strong background in cryptography, leveraging modern web development stacks such as T3Stack and MERNStack. My experience encompasses building responsive UIs and developing secure applications utilizing role-based authorizations.

Projects

rapport

Next.js, MySQL

- Created an **end-to-end encrypted messaging app** securing messages using multiple encryption layers, including **ECDH**, **AES**, and **PBKDF2**.
- Github link: [silicoflare/rapport](https://silicoflare.github.io/rapport) 🔗

nexgen-portal

Next.js, MongoDB

- Created an innovative portal for **participant check-in** that streamlined the management of **food coupons** and improved the logging process for snacks during NexGen 2.0, a high-energy 24-hour hackathon.
- Github link: [silicoflare/nexgen-portal](https://silicoflare.github.io/nexgen-portal) 🔗

docker-hadoop

bash, Dockerfile

- Developed a **minified Docker image** based on Ubuntu, preloaded with essential **Big Data tools** including Hadoop, Pig, and Spark.
- Github link: [silicoflare/docker-hadoop](https://silicoflare.github.io/docker-hadoop) 🔗

vroomify

Next.js, FastAPI

- Designed an innovative **enterprise resource planning** website for a fictional automobile company, enhancing order tracking, inventory management, and material procurement processes.
- Github link: [silicoflare/vroomify](https://silicoflare.github.io/vroomify) 🔗

confidant

Bun, TypeScript

- Developed a **CLI tool** that enables users to easily establish **secure vaults**, employing advanced cryptographic protocols such as **ECDH** for key exchange, **AES** for data encryption, and **HMAC** for ensuring message integrity.
- Github link: [silicoflare/confidant](https://silicoflare.github.io/confidant) 🔗

Experience

Summer Intern, TwoSpoon.ai – Bengaluru, India

July 2024

- Demonstrated expertise in **fullstack development** by constructing a website for a meme-based marketing agency, focusing on a highly responsive UI and role-based authorization. Additional responsibilities included setting up database CRUD operations and developing complex table relationships.

Summer Intern, TwoSpoon.ai – Bengaluru, India

June 2025 – present

- Developing a web-based infrastructure management platform, complete with server setup, to streamline connectivity between market applications and financial exchanges for enterprise clients.

Skills

Programming Languages: Python, C/C++, Java

Web Development: TypeScript, Bun, Next, T3Stack, MERNStack, PostgreSQL, TailwindCSS

DevOps: Docker/Podman, Git, Bash

Add-ons: Cryptography, Markdown

Education

PES University , <i>BTech in CSE (AI&ML)</i> – Bengaluru, India 7.11 GPA (as per 5th semester)	2022 – present
Narayana PU College , <i>PUC</i> – Bengaluru, India Percentage: 95%	2022
St. Francis de Sales Public School , <i>CISCE</i> – Bengaluru, India Percentage: 97%	2020

Publications

Dynamic Crowd Management through Potential Field-Based Simulations Oct 2024
Samprith Jagtap D, **Suraj B M**, T Jaiwanth, Anushka Ghei, Srinivas K S
[10.1109/ICSGSC62639.2024.10813704](https://doi.org/10.1109/ICSGSC62639.2024.10813704) [↗](#) (IEEE)

Hobbies

- **Reading:** Variety of genres like fiction, history, classical literature, contemporary writings, geopolitics, civics
- **Watching:** Police procedural dramas, crime, historical documentaries, gaming
- **Gaming:** Minecraft, Terraria, Grand Theft Auto series