

# 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. I am also moderately experienced with setting up production environments and CI/CD builds.

## Projects

Bun, Podman

### homelab

- Built a homelab with a Raspberry Pi that has CI/CD setup for my projects, and has other open source apps hosted on it, mapped to three of my domains.

Next.js, MySQL

### rapport

- 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.com/rapport) ↗

Next.js, MongoDB

### nexgen-portal

- 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.com/nexgen-portal) ↗

bash, Dockerfile

### docker-hadoop

- 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.com/docker-hadoop) ↗

Next.js, FastAPI

### vroomify

- 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.com/vroomify) ↗

Bun, TypeScript

### confidant

- 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.com/confidant) ↗

## Experience

July 2024

### Summer Intern, TwoSpoon.ai – Bengaluru, India

- 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.

June 2025 – present

### Summer Intern, TwoSpoon.ai – Bengaluru, India

- Developing a web-based infrastructure management platform, complete with production environment setup, to streamline connectivity and view analytics for enterprise clients.

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## Skills

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

**Web Development:** TypeScript, Bun, Next, T3Stack, MERNStack, PostgreSQL, TailwindCSS, Clickhouse DB

**DevOps:** Docker/Podman, Git, Bash, PM2

**Add-ons:** Cryptography, Markdown

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## Education

2022 – present **PES University**, in *BTech in CSE (AI&ML)* – Bengaluru, India  
7.17 GPA (as per 6th semester)

2022 **Narayana PU College**, in *PUC* – Bengaluru, India  
Percentage: 95%

2020 **St. Francis de Sales Public School**, in *CISCE* – Bengaluru, India  
Percentage: 97%

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## Publications

Oct 2024 **Dynamic Crowd Management through Potential Field-Based Simulations**  
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)

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## 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