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

homelab   Bun, Podman
- 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.

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 ☒

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 ☒

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 ☒

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 ☒

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 ☒

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 production environment 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, Clickhouse DB

DevOps: Docker/Podman, Git, Bash, PM2

Add-ons: Cryptography, Markdown

Education

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

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

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

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 ☑ (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