# **B SANTHANAKRISHNAN**

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#### **EXPERIENCE**

- **Intern**, **RISE Lab**, **IIT Madras**, **Summer 2022** Devised a tool capable of reversing the MD5 hash function using quantum logic synthesis. Built with C++, Python, Revkit and Qiskit.
- Intern, BMC Software, 2023 Built an auth server with Flask, tested and deployed on Jenkins.

#### **ACHIEVEMENTS**

- 2nd Runner-up, Hack-o-pitch, IIT Madras Won third place among 500+ participants by building a decentralized data storage and analytics platform on top of IPFS.
- Runner-up, HC-Educates, VIT Chennai Won second place among 100+ participants by building an ed-tech product that enables filesystem-based usage of the Moodle LMS.

## **SKILLS**

- **Fields:** Full-stack application development, Data Science, AI/ML, Compilers, Operating Systems, Database internals, Distributed databases, Cryptography.
- Languages: Typescript, Javascript, Python, Java, Rust, C, C++.
- **Technologies:** Express.js, Next.js, Sveltekit, Deno, Flask, MinimalAPI, Rocket.rs; React, Vue, React Native; Pandas, Scikit-Learn, Tensorflow, R, Tableau; Qiskit, Revkit; Mongo, Postgres, SQLite.

## **PROJECTS**

- **Nand2Tetris:** Built a full computer, *all* from just a NAND gate a CPU, an assembler, a virtual machine, a compiler, an OS and an interpreter. Link
- **WebCrypto on Deno:** Open-source contribution to the popular JavaScript runtime Deno by fixing bugs in its implementation of the WebCrypto API. Link
- **E2ee.js:** A secure, fast end-to-end encryption library for JS/TS. Link
- DNS Client: A DNS client written in C. Link
- **Mood based music recommendation:** Scan your face and get back a music playlist recommended for you by detecting your mood. Built with Tensorflow. Link
- Jambot: A discord music bot with advanced features, built using Typescript and Node.js. Link
- Ticketshow: An event booking platform built with Flask, VueJS, SQLite, Redis and Celery. Link
- Paradox: An API built for an online cryptic hunt, built with the MERN stack. Link
- Minesweeper: Minesweeper as a desktop app, built with Java Swing. Link

# **EDUCATION**

- VIT Chennai 2024 B.Tech Computer Science and Engineering. Current CGPA: 8.8.
- IIT Madras 2024 B.S Data Science and Applications. Current CGPA: 8.9.