B SANTHANAKRISHNAN

- **Email:** work AT santhanam DOT dev
- **Web:** santhanam DOT dev
- **Github:** porridgewithraisins

SKILLS

- **Fields:** Full-stack application development, Data Science, Compilers, Operating Systems, Computer Architecture, Cryptography, Quantum Logic Synthesis.
- **Languages:** Typescript, Javascript, Python, C#, Rust, C, C++, Java.
- **Technologies:** Express.js, Next.js, Sveltekit, Deno, FastAPI, Flask, MinimalAPI, Rocket.rs; React, Vue, React Native; Pandas, Scikit-Learn, Tensorflow, R, Tableau; Qiskit, Revkit.

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 API using Flask, tested and deployed on Jenkins.

ACHIEVEMENTS

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

PROJECTS

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

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.