# Shantanu Ramanujapuram shantanuramanujapuram@gmail.com | C:\Users\Admin\Desktop\githubCat.png <https://www.github.com/shanTen>

Student with experience in full-stack development, mobile app creation, REST APIs, database management, and a strong background in automation, test driven development and embedded systems

# Experience

**Paid Project Intern | Indira Gandhi Center of Atomic Research | Hybrid Feb 2024 – July 2024**

* Designed and fabricated a prototype of an IoT Smart Energy Meter from scratch
* Created data transmission network layer (**ExpressJS**) from GSM/GPRS to WAN (internet + REST API web services)
* Recorded data in a **MySQL** database and built interfaces for web in **React** and mobile in **React Native**

**Software Development Engineering Intern | Baton Systems Ltd | Onsite June 2024 – July 2024**

* Streamlined node registration for the notarization service in Core Forex settlements team
* Added comprehensive unit tests using **JUNIT5** for multiple microservices
* Introduced to test-driven development and high-level design of webservices in **Java** and **Spring Boot.**

# Projects

**Sentinel Smart Wearable |** *Micro-Python, NodeJS, React Native, Embedded-C* **January 2024**

* Engineered IoT smart wearable capable of assisting visually impaired people
* Integrated ESP32 Camera, TF Luna Mini **LiDAR** and **haptic motors** in a R-pi Pico microcontroller
* Performed **AI frame analysis** for content using mobile net model and edge impulse, **response time - 200ms.**
* Won **2nd Place** at **SRM Project Expo**, **1st place** at **BIT, Bengaluru** Project Expo

[**Paradox Mobile Clients**](https://github.com/ShanTen/ParadoxSR) **|** *React Native, TypeScript, Expo* **April 2024**

* **Super Coordinator** – **Web Operations**, **IIT Madras** BS Degree’s Cultural Fest **Paradox 2024**.
* Developed **two** **android applications** for Paradox 2024, used to track **event registration** and **accommodation**
* Used by volunteers to track the footfall of **2000+ students**, with extremely fast application response times

**Multi-Terrain Hexapod Robot |** *C++, NodeJS, Python, Electron* **September 2024**

* **Designed** robottelemetry systems which use **LoRa WAN**, **TCP** and **UDP** communication streams
* **Built** an **Electron application** to act as the robot’s controller to give movement instructions to the robot
* **Integrated LiDAR**, IR Camera, on board sensors and networking into **ST-Discovery-L475E-IOT01A** Firmware.
* **Top 20 finalist - AICTE ARM Inventors Challenge 2024**

# Technical Skills

**WebDev:** React Web, React Native, MongoDB, REST APIs in Express, Flask, Springboot

**Electronics:** Micropython, Arduino, embedded driver development (STM32), Mbed OS

**Programming:** JavaScript, Python, C#, Java, Typescript, C/C++

**DevEnv:** Bash scripting, git, MS-batch, PowerShell Automation, MySQL, Digital Ocean

**Others:** ffmpeg, ImageMagick, OpenCV, mediapipe, LTSpice, Pandas, Scikit, Altium

# Education

**IIT Madras BS Degree | Remote |** **CGPA: 7.2 June 2022 – Present**

* Foundational course in Data Science | June 2022 – December 2023
* Diploma in Data Science | January 2024 – Present
* Courses: Machine Learning Theory, ML Fundamentals, Business Data Management

**SRM IST Ramapuram | Chennai, Tamilnadu | CGPA: 9.46 August 2022 – Present**

* Electronics and Communications Engineering
* Achievements: SRM Project Day 2024 - Runner Up, Winner BIT Project Expo (April 2024)

**The PSBB Millennium School Gerugambakkam | Chennai, Tamilnadu June 2007 – June 2022**

* Computer Science and Mathematics Stream | **AISSE: 465/500 | AISSCE: 449/500**