Shantanu Ramanujapuram

shantanuramanujapuram@gmail.com | https://www.github.com/shanTen

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

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**

SDE 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 **Springboot.**

Projects

Hydrocarbonator + CC parser + Tree Parser | *Python*   **May 2023**

- Created **2 interpreted languages** and **1 markup language** respectively, from scratch in Python
- Implemented schemas for IUPAC nomenclature and custom naming support
- Demonstrated PoC for the expansion of typical lexers and parsers to support scientific nomenclature

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 | *React Native, TypeScript, Expo*   **April 2024**

- **Super Coordinator** - **WebOps**, **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 footfall of **2000+ students**, with extremely fast application response times

Technical Skills

WebDev: React Web, React Native, MongoDB, REST APIs in Express, Flask, Springboot
Electronics: Micropython, Arduino, embedded driver development (STM32)
Programming: JavaScript, Python, C#, Java, Typescript, C
DevEnv: Bash scripting, git, MS-batch, and PowerShell Automation, MySQL, atlas-mongodb, apache
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, Big 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**
- Achievements: Quiz Club Secretary | Debate Club Vice President & President