GIRINATH

Kharagpur, West Bengal, India

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EDUCATION

Indian Institute Of Technology, Kharagpur **JULY 2019 – MAY 2023**
Bachelor Of Technology|Major - Electrical|Minor - Computer Science |CGPA-8.88 *Kharagpur, India*

Central Board Of Secondary Education (CBSE) **JUNE 2016 – MAY 2018**
All India Senior School Certificate Examination | Percentage - 93.8% *Patna, India*

INTERNSHIPS

Software Engineering Intern | Texas Instruments ↗ **MAY 2022 - JULY 2022**
- Automated **80%** of **SOC** Addition to the **TI MCU+ SDK** framework, which includes source code generation from C, C++, JS, JSON, and MAKEFILE templates, resulting in increased developer productivity.
- Prototyped a tool, which along with **TI SysConfig**, generated configuration and examples according to the device. This reduced the total size of the SDK and developers' time spent configuring multiple devices.

PROJECTS

Battery Monitoring and Management System | Bachelor Thesis Project under Vikranth R. ↗ **2022**
- Implementing the **Bluetooth LE** (including security) equivalent of the existing Wifi Stack for **lower power** usage on the **ESP32** and a Web Application based on **WEB-BLE** to debug it.
- Implementing the data acquisition and communication based on BLE on ARM-based STM32 and NRF52833.

File Sharing Application ↗ | C, C++, Make **2022**
- Used **TCP** connection over **IPV4/6** to ensure integrity. Supports Resuming and Low Memory Usage.
- Achieved **20x** disk read/write speed compared to the synchronous read/write API using concurrency.

Chess Application ↗ | Python, Chess, and SpeechRecognition Modules **2021**
- Used **Tkinter**, **Threading**, and **Socket** modules for concurrency, graphical interface, and communication.
- Built **sound** input using the Python **SpeechRecognition** module, to **reduce mouse slips** during games.

TECHNICAL SKILLS

Languages: Proficient : C, C++, Python, Javascript. Familiar : Go, Rust, Solidity, Assembly Language
Developer Tools: VS Code, Atmel Studio, Arduino IDE, Arm Keil
Technologies and Frameworks: Linux, GitHub, Git, NodeJS, Ethereum, and Hyperledger Fabric
Boards and Microcontrollers: Arduino Uno, ESP8266, ESP32, NRF52833, and STM32(Arm Based)

CERTIFICATIONS

- Google IT Automation with Python Professional Certificate
- Design and Analyze Secure Networked Systems - University of Colorado Boulder
- Financial Markets - Yale (Robert J. Shiller)

COURSEWORK / SKILLS

- Data Structures & Algorithms
- Computer Architecture & Operating Systems
- Theory & Appl. of Blockchain
- Embedded Systems
- Artificial Intelligence
- Principles of Programming Languages
- Signals & Networks
- Probability & Stochastic Processes
- Discrete Structures

ACADEMIC ACHIEVEMENTS

- AIR **2003** in Jee Advanced-**2019** and AIR **3697** in Jee Advanced-**2018**, amongst more than 200,000 candidates.
- **99.7814380** percentile in **Jee Main**, amongst more than 1,000,000 candidates. **2019**
- **KVPY Fellowship** accorded by the Department of Technology, Government of India. **2017**

EXTRACURRICULAR

Student & PDS Doubt Solving Mentor | Technology Students Gymkhana, IIT Kharagpur ↗ **2021-Present**
- Aiding a group of three freshers in all aspects of their college experience.
- Solving problems and Dispelling doubts of first-year Programming and Data Structures course students.