Debayangshu Sen

Guwahati, Assam - 781034
8822866953 debayangshusen@gmail.com linkedin.com/in/debayangshusen github.com/clamesys

Summary

Enthusiastic and multidisciplinary Computer Science student with hands-on experience in IoT development, embedded systems, cybersecurity, and software automation. Skilled in building end-to-end solutions—from hardware prototyping and PCB design to Python scripting and Linux administration. Passionate about problem-solving, system analysis, and delivering innovative tech solutions across both hardware and software domains.

Education

Assam down town University **Aug 2022 – Jun 2026**
Bachelor of Technology in Computer Science and Engineering (B.Tech CSE) *Guwahati, Assam*

Experience

Ninur Tech Pvt. Ltd. **Feb 2025 – Present**
IoT Engineer Consultant Intern *Guwahati, India*

- Led the research and development of custom IoT hardware prototypes tailored to client requirements.
- Designed and printed custom PCBs; performed wiring, soldering, and hardware assembly.
- Programmed microcontrollers (RP2040, RP2350, ESP32, etc.) using MicroPython and C/C++, focusing on reliable embedded systems.
- Created 3D models for enclosures and used 3D printing to manufacture functional casings.
- Worked independently on all IoT-related tasks, managing the full development lifecycle from design to deployment.

Assam down town University – IT Cell **Jun 2025 – Jul 2025**
Database Management Intern *Guwahati, India*

- Conducted detailed research on schools and educational institutions based on assigned names.
- Collected, verified, and organized key information such as affiliations, location, and academic offerings.
- Updated and maintained the internal database with accurate and consistent records to support outreach and data analytics.
- Contributed to streamlining the data collection and entry process to improve overall efficiency.

Projects

Anti-Theft System for Two-Wheelers (Prototype) | *BLE, MicroPython, Raspberry Pi Pico W* **March 2025**

- Designed BLE-based anti-theft system that detects user's smartphone proximity and disables ignition when out of range.
- Wrote firmware in MicroPython for Raspberry Pi Pico W and prototyped the system as part of a hackathon.
- Demonstrated real-time Bluetooth scanning and integrated it with a relay mechanism to control ignition.

Wi-Fi Rubber Ducky using RP2040 (Planned) | *RP2040, W25Q16JV, Circuit Design, 3D Modeling* **April 2025**

- Planned a stealth USB Rubber Ducky embedded in a power cable for penetration testing use cases.
- Designed a custom PCB with RP2040 and SPI Flash (W25Q16JV), intended to emulate HID attacks over USB.
- Created a compact 3D model for a disguised housing; project was cancelled due to component unavailability.

WiFi FTP | *Python, Sockets, GUI (Tkinter-Web), Networking* **January 2024**

- Designed a cross-platform Python application to wirelessly transfer files over Wi-Fi using socket programming.
- Built a Tkinter GUI for intuitive server/client setup, file browsing, and live progress display.
- Implemented a chunked transfer protocol with timeout handling, real-time updates, and no setup overhead.
- Tested on both LAN and mobile hotspots for fast, portable, and dependency-free file sharing.
- Source code: `github.com/clamesys/Wifi-FTP`

Skills

Programming: Python, C, Bash, Linux, Data Structures, Algorithms
Cybersecurity: Ethical Hacking, Digital Forensics, Cryptography, Malware Analysis, Vulnerability Assessment
IoT & Hardware: Embedded Systems, PCB Design, Sensor Integration, Prototyping, Hardware R&D, 3D Modeling
System Administration: Windows Troubleshooting, Server Management, System Analysis, Network Configuration
Creative & Design: Photo Editing, Video Editing, UI/UX Basics, Technical Documentation