Aadarsh S U

Chennai, India | +91 8870531587 | aadarshsivagurunathan@gmail.com
[LinkedIn](#) | [GitHub](#) | [Website](#)

EXPERIENCE

Microchip Technologies Inc.   **On-Site**
A publicly listed American Corporation that manufactures microcontroller, analog, and Flash-IP integrated circuits
Microchip – Engineer I - Corporate Applications Engineer   Jul 2024 – Mar 2025

- Worked with clients to deliver critical project tasks across the entire WNET product portfolio, consistently meeting deadlines.
- Developed a Python tool using OpenCV to extract pin names from customer-provided schematics, enabling **global team-wide usage**.
- Developed an alternative network testing GUI in Python for customized hardware testing, reducing testing time by **30%.**
- Performed functional and protocol testing of wired network products with integrated MPUs on **Linux** platforms, utilizing **Python-based scripts and libraries**.
- Developed a **GUI application** comprising 6 interactive screens, utilizing a structured toolchain to build and package the application into an executable. Ensured smooth deployment and functionality by validating the GUI through the generated executable.
- Validated and analyzed the implementation of IEEE protocols such as PTP and ACL on managed Ethernet switches.

Student Intern   **Chennai, India**
Microchip Technologies Inc   Jan 2024 - Jun 2024

- Developed an embedded C solution for data transmission over Ethernet on entry-level microcontrollers without native Ethernet support, achieving a **25%** increase in transmission speed.

Workshop   **Bangalore, India (Sep 2022)**

- Gained hands-on experience with Android development tools and implemented real-time text-to-speech functionality conducted by **IISc Bangalore** to enhance practical knowledge in mobile app development.

EDUCATION

Thiagarajar College of Engineering   **Madurai, India**
Bachelors of Engineering in Electronics and Communication Engineering   Sep 2020 – May 2024
                                                                                                                                     CGPA 9.61
Vidhya Sagar Global school   **Chengalpattu, India**
12th Grade   June 2019 - March 2020
                                                                                                                                    Score 92%

PROJECTS

- **Email Automation Script**: Developed a Selenium WebDriver script with Python for email automation during a college club event, resulting in **sending over 500 email invites** to participants.
- **Car Showroom Management System:** Developed a showroom management system with full **CRUD** functionality, enabling staff to efficiently add, update, and remove vehicle records, streamlining inventory tracking and status management.
- **Hostel Management System:** Designed and developed a web-based application for student record management, implementing complete **CRUD** operations and integrating a relational database for optimized data storage and retrieval.
- **Smog Prediction and alerting system:** Executed **end-to-end integration** of a smog detection system using NodeMCU, environmental sensors, and custom PCB for interfacing. Enabled real-time and cloud-based monitoring with **ThingSpeak**, applying **data analytics and predictive modeling (LPC)** for trend analysis. Combined hardware design, **real-time data processing**, and IoT for smart environmental monitoring.
- **Hobby Projects:**
  - Designed and implemented game logic for Tic-Tac-Toe and Black Jack using **Python**.
  - Implemented web scraping projects using Python, leveraging libraries like Requests, BeautifulSoup, and CSV for data extraction and organization.

SKILLS

- **Languages:** Python, PHP, JavaScript, C
- **Databases:** MySQL
- **Version Control:** Git
- **Web Technologies:** HTML, CSS.

CERTIFICATIONS

- Elite certification for "The Joy of Computing using Python" awarded by IIT-Madras
- The Complete Python Bootcamp from Zero to hero in Python - Udemy
- The complete 2024 Web Development Bootcamp - Udemy