# Aadarsh S U

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## EXPERIENCE

**Microchip Technology**                                                                      **On-Site - Chennai, India**

A publicly listed American Corporation that manufactures microcontroller, analog, and Flash-IP integrated circuits

**Engineer I - Corporate Applications Engineer**                                              Jul 2024 – Mar 2025

- Worked with clients to deliver critical project tasks across the entire WNET (L1 and L2) 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 Technology**                                                                      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.
- Created an software application for an hourly reminder system with configurable intervals and low-power design for efficient operation on resource-constrained platforms.

**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**

12$^{th}$ 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:** Designed a showroom management system with **CRUD** functionality, streamlining inventory tracking and vehicle status management.
- **Hostel Management System:** Built a web-based student record management application with complete **CRUD** operations and 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, Java, PHP, JavaScript, SQL, C
- **Database:** MySQL
- **Framework:** Spring
- **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.