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

Bachelors of Engineering in Electronics and Communication Engineering

Madurai, India Sep 2020 – May 2024 CGPA 9.61 Chengalpattu, India June 2019 - March 2020

Score 92%

Vidhya Sagar Global school

12th Grade

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.