Sai Abhishek Aravind

mrsaiabhishek@gmail.com | GitHub | Portfolio | Linkedin | Hacker Rank Profile

SUMMARY

I am a 4th-year Electrical and Communication Engineering student at VIT University, India. I am passionate about Hardware engineering particularly Networked Embedded Systems and Computer Networking.

My Research interests are Networked Embedded Systems, Cyber-Physical Systems, Control Networks, and Ad-Hoc Network Communication. I am able to effectively self-manage during independent projects, as well as collaborate as part of a productive team. Strong organizational abilities with proven successes managing multiple academic projects and volunteering events.

EDUCATION

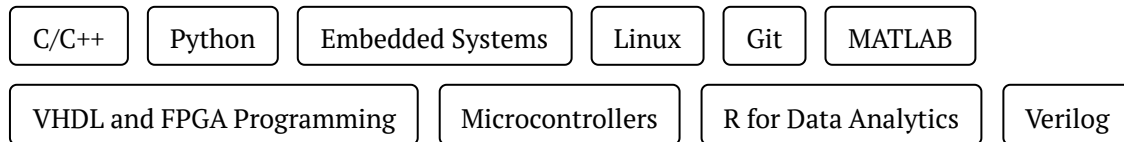|	

2018 – present
Chennai
	Bachelors in Technology (B.Tech)
	Vellore Institute of Technology, Chennai Campus
	    MAJOR: Electronics and Communication Engineering
	    CGPA: 8.04

2018
Chennai
	12th Grade CBSE
	DAV Boys Senior Secondary School
	    COURSE WORK: COMPUTER SCIENCE
	    FINAL SCORE: 86.7%

INTERNSHIP EXPERIENCE

2021/12 – present
Chennai, India

Firmware Engineering Intern
Sanmina Corporation
- Currently working on Yocto based Embedded Linux System for Embedded devices in the field of Health Care Technology.
- My work includes using the OpenEmbedded (OE) project, which uses the BitBake tool, to construct complete Linux images for different applications and hardware configurations.
- Assigned to help the team in testing, debugging, and deployment of the system.

2020/05 – 2020/07

Data Scientist Intern
Edvicer Private Limited
Assigned to scrape clean and structured data such as comments, links, images, titles, descriptions from different websites to build their recommendation system. Learned automation using Selenium to automate the above process.
Major accomplishments:
- Provided the complete data with the necessary cleaning, modifications, and structure to the Machine Learning team to use the provided data for the Recommendation System.
- Used several libraries such as Selenium, and Pandas to automate data collection tasks.

2019/05 – 2019/06
Chennai

Wireless Engineer Intern
Sify Technologies Limited
Assigned to the wireless engineering team.
Major accomplishments:
- Learned about communication technologies, their respective protocols, and real-world applications.
- Helped the wireless testing team in solving day-to-day connectivity issues faced by real-world customers.

RESEARCH PROJECTS AND PUBLICATIONS

2021

End to End COVID-19 Public Screening System
Institute of Electrical and Electronics Engineers (IEEE)
Paper published in IEEE Xplore Digital Library ⧉ as part of the IEEE CONECCT 2021 ⧉ Conference

2021

IoT based Control System For Home Automation
Institute of Electrical and Electronics Engineers (IEEE)
Accepted for Publication in IEEE Xplore Digital Library as a part of the TEMSMET 2021 Conference ⧉ .

2021	**FANET Routing Survey: An Application Driven perspective.**
	Lecture Notes in Electrical Engineering (SPRINGER)
	Accepted for publication in Lecture Notes in Electrical Engineering (SPRINGER) ⌕ at VICFCNT 2021 Conference ⌕ .
2021	**Anti-Abduction System For The Vulnerable**
	Institute of Electrical and Electronics Engineers (IEEE)
	Paper Accepted at the 2021 TEMSMET Conference.

SKILLS

C/C++   Python   Embedded Systems   Linux   Git   MATLAB

VHDL and FPGA Programming   Microcontrollers   R for Data Analytics   Verilog

PROJECTS

IoT based Control System for Home Automation
Research Paper was accepted at the IEEE Second International Conference on Technology, Engineering, Management for Societal impact using Marketing, Entrepreneurship and Talent .

graphFramework – An open-source C++ Library for graph data structure
Open Source Library for graph data structure. This project contains the most used algorithms pertaining to Graphs and Trees. These algorithms are compiled and implemented in such a way that any third party user can implement them in their own project with ease.

End to End COVID-19 Public Screening System
Research paper submitted and accepted at the IEEE CONECCT 2021 Conference. The proposed system in this project can detect face masks from a live video feed, also can detect common violations and is capable of sending messages to the administrator when a violator is detected.

Design and Analysis of Anti Lock Braking system
This project was done as a part of Control Systems course. In this project I succesfully designed and modelled a realistic Anti-Lock Braking System (ABS) that are found in automobiles using the concepts of Control Theory and Feedback mechanisms. In the end, we compared and analysed how ABS affects a vehicle in different environmental conditions. This modelling and designing was done using MATLAB and Simulink.

Gender Identifier by Voice Analysis using MATLAB and Signal Processing.
This project won "The Best Project" award at the Open House in 2019. The system built was designed to identify the gender of the live audio message. This project uses Correlation as the main Signal Processing technique for gender identification.

Car Number Plate Detection Using MATLAB and Image Processing.

Small Scale Surveillance System with IoT functionality using Raspberry Pi and Python.

Automated Reverse Parking Sensor using 8051 Microcontroller and Assembly language.

Subwoofer Amplifier using NPN Transistors.

VOLUNTEER EXPERIENCE

2020 – 2021	**The Debate Society of VIT Chennai**
	General Secretary
2019 – 2020	**VITC Model United Nations**
	Head of Marketing
2019 – 2020	**VITC Intra Model United Nations**
	Head of Marketing

CERTIFICATES

PCAP: Programming Essentials in Python from Cisco Networking Academy.

Ethical Hacking and Cyber Security course from zSecurity.

Core Java Training from The Learn Programming Academy.

Software Engineering Virtual Experience from JP Morgan Chase & Co.

Introduction to Artificial Intelligence from VITOL   •   Marketing Management from VITOL