# Mayank Sharma

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## Education

**Vellore Institute of Technology, Vellore** **Aug 2020 – July 2024**
*B.Tech in Computer Science and Engineering* *8.35, CGPA*

## Experience

**Dyte (Intern + SDE)** **May 2022 – Present**
- Developed a Core and UI-Kit library that improves customisability and usage of SDKs
- Wrote blogs on technical topics
- Effectively communicated with Clients and resolved their issues
- Improved and maintained performance of the react native SDKs

**Aerospace Engineers Private Limited (Robotics Intern)** **Nov 2021 – Dec 2021**
- Developed software to control the robot's actuators
- Developed modular code to navigate the bot based on Computer Vision and Sensor Information
- Troubleshooted and debugged ROS programs
- Developed cross-platform compatible GUI in PyQt5.

## Projects

**Easy Firebase**
- Flutter package to quickly setup and use many firebase functionalities with wrapper functions including Authentication , Realtime Database , Firestore Database and Firebase Storage.
- Reduces firebase integration from hours to less than 10 mins
- Published to pub.dev, ready to integrate as a dependency in any flutter project

**RobotX USV Navigator**
- ROS project to simulate and control the trajectory of RobotX USV Robot
- 3 variants of options available to specify the path: Linear, Circular, Lawn-Mover
- Implemented PID Control System in Python
- PyQT5 based GUI to fine tune the parameters for the bot
- Cross Platform control Support

**CrashFinder**
- Android native library to catch unhandled exceptions
- Implemented JNI to interop Kotlin with NDK support in C++ and extract process details from SE-Linux in Android.
- Sent crash data to a Node server via POST request

**MagicAutomation**
- A C++ library that acts as a framework to build Arduino-based Home Automation systems
- Feature to add/remove a node
- AES based encryption to encrypt/decrypt data to preserve privacy
- Tree like architecture to support hierarchical nodes

## Leadership / Extracurricular

**Projects Lead, IEEE-VIT** **Dec 2020 – Dec 2023**
- Responsible for development of innovative projects while mentoring the team to solve real world problems and deliver it to help the community
- Developed software for events and projects used by 1500+ participants in 100+ countries.
- Speaker at "Techloop Alpha 2022", guiding 1000+ students in App Development.

**Computer Vision Head, VAUV** **Sep 2022 – Dec 2023**
- Responsible for developing solutions of computer vision algorithms for Underwater Robot
- Worked with the Team to solve underwater navigation via Image Processing and Deep Learning

## Skills and Interests

**Programming Languages**: Kotlin, Dart, Objective C, Go, JavaScript, TypeScript, NodeJS, Python3, Java, C, C++

**Relevant Coursework**: Data Structures and Algorithms, Database Management Systems, Objected Oriented Programming, Operating Systems, Computer Networks, Computer Architecture and Organization, Theory of Computation, Cryptography Fundamentals, Cyber Security, Network Security, Web Security

**Miscellaneous**: Android Studio, XCode, Robot Operating System, Linux, Git, GitHub, Jira, Postman, PostgreSQL, MongoDB, MySQL, Azure, AWS

**Qualities**: Confident, Multitasker, Quick-learner, Adaptive, Team player, Problem Solving