

# Sai Harshit B

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## EDUCATION

### BMS Institute of Technology and Management

Bachelor of Engineering in Computer Science

Bengaluru, India

Aug. 2020 – Jul. 2024

## SUMMARY

Software engineer with experience in C#, SQL, and full-stack development. Built production-ready tools and systems using .NET-like backend architectures (C#), FastAPI, SQL Server, and ReactJS. Deployed to Azure, contributed to internal automation, and collaborated across teams using Agile. Passionate about backend development, clean code, and system design.

## EXPERIENCE

### Graduate Engineer Trainee

Jul 2024 – Jul 2025

Carl Zeiss

Bengaluru, India

- Prototyped a diagnostics tool for medical imaging systems using **C# and WinForms**, automating structured health checks and reducing service time by **30–40%**. Proposed an AI-driven predictive diagnostics module, formally added to the product roadmap with full design and documentation.
- Built and deployed a full-stack lab inventory platform for **3+ R&D labs** using **ReactJS, FastAPI, and SQL Server** on Azure; enabled real-time device connectivity monitoring and improved accountability.
- Maintained and stabilized **VisuCore500** test suite comprising **1000+ Selenium+C# cases**, improving CI reliability for **48% of total test coverage**.

### Software Intern

Jan 2024 – Jun 2024

Carl Zeiss

Bengaluru, India

- Contributed backend logic and deployment support to an internal feature store platform used in ML workflows, improving integration reliability.
- Developed a CI activity dashboard using **React**, reducing manual build tracking effort by **60%** and enhancing visibility during sprint reviews.
- Wrote early-stage test cases for the **VisuCore500** platform using **C# and Selenium**, improving initial QA coverage and reducing flaky test rate.

### Robotics R&D Intern

Aug 2023 – Nov 2023

CAIR Lab, DRDO

Bengaluru, India

- Integrated **MoveIt2** with **PlanSys2** in ROS 2 Humble for autonomous task execution on a custom 6-DOF robotic arm.
- Benchmarked OMPL planners, tuning **RRTConnect** to emulate RRT\* performance with **80% path consistency in under 45%** of runtime.
- Enabled LAN-based collaborative development workflows in a secure lab setup for multi-user robotic simulation and control.

## PROJECTS

### Lab Inventory Manager | FastAPI, SQLAlchemy, ReactJS, Azure

May 2025 – Jun 2025

- Created full-stack solution with RBAC and real-time device status monitoring. Used SQL Server backend and deployed via Azure.

### Voice Controlled Robot Arm | ROS2, MoveIt2, PlanSys2

Oct 2023 – Jun 2024

- Voice-triggered autonomous robotic task planner integrated with real-time simulation and execution using ROS2 tools.

## TECHNICAL SKILLS

**Languages:** C#, Python, SQL, JavaScript, Java, C/C++

**Frameworks/Tools:** FastAPI, ReactJS, SQLAlchemy, Selenium, ROS2, MoveIt2, PlanSys2

**DevOps:** Git, Azure, Visual Studio, Postman, CI/CD basics

**Concepts:** OOP, REST APIs, Agile, RBAC, Motion Planning