

Shubham Goyal

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Github | LinkedIn

Education

Bachelor of Technology (2018-2022) in
Civil Engineering with minors in Computer Science
CGPA: 9.544/10
Indian Institute of Technology (IIT) Roorkee.
Scored 91.8% in 12th Standard CBSE.

Current Position

Software Development Engineer at Microsoft, India

Areas of Interest

Problem-Solving, Data Structures, and Algorithms

Experience

Work Experience, **Microsoft, Hyderabad**

July 2022 - Present

Viva Learning: Featured Set, Academies and Add To Calendar

- Academy is a set of curated learning paths for employee skill development. Featured Set is a set of curated courses to be highlighted on the academy & a user can book a slot for a course via Add To Calendar feature.
- Developed "Add To Calendar" and "Featured Set" features from scratch, encompassing MVC architecture for the user interface, layered backend implementation, GraphQL queries and mutations, CRUD operations, unit tests, end-to-end tests using Cypress, telemetry, & accessibility to make these features inclusive for all users.
- Developed "Add To Calendar" feature from scratch on mobile & authored functional tests on the server side.
- Contributed to the "Academy" feature, focusing on front-end development, telemetry, and accessibility.

Viva Learning: Viva Email Integration and Course Progress Tracking

- Viva Email efficiently dispatches daily schedules and timely alerts for assignments near due dates or overdue, while Course Progress Tracking diligently monitors and records users' course advancement.
- Implemented Interconnections controller for Viva Email integration requirements and conditional filtering of assignments based on due date and reminder days list fetched from ECS.
- Designed the progress card & developed GraphQL queries & mutations for Course Progress Tracking feature.

MITACS Globalink Research Internship, **York University, Canada**

June - August 2021

Monitoring Re-Growth of Invasive Plants

- An autonomous surface robot aimed at monitoring the re-growth of invasive plants at freshwater lakes.
- Worked on collecting bathymetric data in the form of rosbags and then created a depth map.
- Developed a control algorithm for autonomous robot navigation using GPS, IMU, and LIDAR data.

NTU-India Connect Research Internship, **NTU Singapore**

May - July 2021

Wall Climbing Robot

- Designed an autonomous wall climbing robot with four suction cups and one pneumatic cylinder.
- Surveyed prior art in the research literature to identify various mechanisms used for wall climbing.
- The simulation of the robot was done in Adams Software and was designed in SolidWorks Software.

Relevant Projects

Terrace Farming Bot, IIT Roorkee

Sep - Dec 2019

- The project automated processes of seeding, plowing, harvesting, & watering for efficient management.
- Implemented a web-based crop health monitoring system to enable remote tracking for farmers.
- Developed a control algorithm based on the feedback of sensors & actuators for precise bot operations.

Achievements

- Awarded **Dr. A.S. Arya Cash Prize** for excellent overall performance amongst the graduating male students.
- Selected for the MITACS Globalink Research Internship Program, 2021.
- Selected for the India Connect @NTU Research Internship Program, 2021.
- Secured **Gold medal** for the event Terrace Farming Robot in the **8th Inter IIT Tech Meet**, 2019.

Skills

Computer languages C++, C#, TypeScript, React Native

Relevant Courses Design and Analysis of Algorithms, Data Structures, Operating Systems, Database Management System, Computer Networks, Probability and Statistics, Numerical Methods and Computer Programming