# Jason DMello


Bachelor of Technology
Computer Science Engineering
Manipal Institute of Technology, Manipal

+91-8976080920
jason.dmello21@gmail.com
Portfolio Website
GitHub Profile
LinkedIn Profile


## Education

**•Manipal Insititute of Technology, Manipal** *2021-2025*
*B.Tech Computer Science Engineering* Karnataka, India

**•The Indian High School** *2019-2021*
*Board of Secondary Education* Dubai, UAE

## Experience

**•Robotics and Circuits (Student Project)** *Apr 2022 – Present*
*Coding Domain Team Member* Udupi

- Worked with team members to build a Micromouse (Maze-Solving) Bot in **Arduino** to participate in competitions across India.
- Developed software for a Line Following Bot to participate in time challenge competitions.
- Programmed a numberplate recognition software to be used by CCTV cameras for Kavach'23.
- **Reduced time delay** by over **50%** in drawing characters as well as added an **automatic image cropping feature** for character detection in a project which helped our team get 2nd place in MITs Techtatva Event.
- Conducted interviews for new members attempting to join the club.

## Personal Projects

**•Micromouse Maze-Solving Bot**
*Arduino, C++, C*

- A Maze-Solving bot that implements the **modified flood-fill algorithm** to calculate the shortest path to the end of the maze.
- Utilizes a **closed loop PID** system to rotate about its axis and travel from one point to another.
- Collaborated with teammates and acted as a **POC** to team leader of the club for the project.
- Currently in development to participate in national and international competitions throughout India.

**•Quantum safe Blockchain**
*Encryption, Kyber-Dilithium, React, Flask*

- Built a demo for a blockchain that uses **quantum safe encryption** for key generation
- Utilized **Kyber-Dilitium and ECC** (double encryption) for generating keys, signing signatures and verifying transactions.
- **Selected for nationals** in inter-college hackathon for SIH 2023

**•Non-Touch Input Device**
*Python, Opencv, Mediapipe*

- Developed a software along with three other team members that enables end user to control the entire pc using only hand gestures.
- Contains character recognition software to function as a quick access taskbar.
- Utilizes **OpenCV**, for image detection,**mediapipe** for hand detection, **tensorflow** for character recognition and **Numpy** for image transfiguration
- Showcased in MITs Techtatva and and **won 2nd place** in the Vedant competiton

## Technical Skills and Interests

**Languages**: Java, Python, C, SQL, JavaScript, HTML/CSS, Arduino (C++)
**Other Tools**: React, Node.js, Git