

MUDIT GARG

[WhatsApp](#) | gargmu@tcd.ie | [Portfolio Website](#) | [LinkedIn](#) | Dublin, Ireland

PROFILE

Software Engineer who delivers efficient, scalable and optimized solutions that measurably improve business outcomes. Proven ability to produce such improvements, both as an individual contributor and as a team collaborator, with particular focus on modularity, performance, and scalability.

EDUCATION

Masters in Engineering (M.A.I.). Major in Computer Engineering

Trinity College Dublin, Ireland

Sept 2023 – Jun 2024

Coursework: Information Retrieval and Search Optimization, Adaptive Applications, Software Engineering, Security and Privacy

Bachelors in Engineering (B.A.I.). Major in Computer Engineering

Participated in a 2+2 international credit transfer program based on merit awarded to the top 1% students of the batch. Final bachelor's degree was awarded by Trinity College Dublin

Trinity College Dublin, Ireland

Sept 2021 – Aug 2023

Coursework: Algorithm, Digital System Design, Microprocessor Systems, Signal and Systems, Probability and Statistics, Software Development Analysis, Computer Networks, Information Management for Engineers, Internet Applications, Database Management Systems, Deep Learning

Thapar Institute of Engineering and Technology, India

Aug 2019 – Aug 2021

Coursework: Data Structures, Operating Systems, Discrete Mathematical Structures, Machine Learning, Artificial Intelligence

Secondary High School Diploma. Major in Science. Minor in Computer Sciences

Sheiling House School, Kanpur, India

Till July 2019

EXPERIENCE

Software Engineer Intern

Jan 2023 – Aug 2023

General Motors

Dublin, Ireland

- Collaborated on a **Spring Boot**, **Maven** and **Java** based microservice with a team of 6, **optimizing performance by 96.4%** and **reducing technical debt by 23%**, streamlining the **CI/CD** pipeline.
- Spearheaded the development of a new front-end architecture based in **Angular**, utilizing highly efficient, industry-standard UI/UX practices, **increasing user engagement by 15%** as compared to the previous iteration.
- Streamlined crucial **Power BI** reports in collaboration with senior engineers across time zones, **increasing productivity by 33%** through optimized screen real-estate and report consolidation.

SKILLS

Languages:	Java, Python, C/C++, Dart, SQL, JavaScript/TypeScript, HTML/CSS, ARM Assembly
Frameworks:	Spring Boot with Maven, Flutter, React with Vite, Flask
Databases & Libraries:	PostgreSQL, MongoDB, Firebase Firestore, ScikitLearn, Numpy, Tensorflow, OpenCV
Tools:	Git, Azure DevOps, Docker, Kubernetes, Jupyter, Power BI
Core Concepts:	OOP, System Design, Agile, Scrum, Generative AI, CI/CD

PROJECTS

RaDAR: Resume and Job Description Analysis Resource

Jun 2025

React, Vite, Redux, JSX, Flask, Gemini 2.5 Flash API, Google Cloud Platform (GCP)

https://muditgarg48.github.io/radar_frontend/

- Developed an AI-powered analyzer that extracts key actionable insights from resumes and job descriptions, enhancing ATS compatibility and **reducing manual review and application tailoring time by 95% per application**.
- Incorporated an application tracker with smart status updates, **reducing job-search organization overhead by 80% and enabling users to track 200+ applications efficiently in one dashboard** without needing to juggle between platforms for related tasks.

Portfolio Website with Retrieval Augmented Generation (RAG) based chatbot

Oct 2024

React, JavaScript, Python, Flask, ChromaDB, LangChain, Gemini 1.5 Flash API

<https://muditgarg48.github.io>

- Designed and launched a dynamic portfolio website using **React** and **JavaScript**, resulting in a **30% increase in recruiter engagement** and an **18% rise in user adoption** due to improved user experience and streamlined access to professional details.
- Integrated a **Gemini API** and **ChromaDB**-powered AI chatbot, enabling query-driven portfolio exploration and **improving user interaction efficiency by 40%** through precise answers and guided navigation.

Gesture recognition-based device control

May 2024

Python, Jupyter, Bootstrap, Google Mediapipe

https://github.com/muditgarg48/gesture_based_device_control

- Engineered a gesture recognition model using a custom **LSTM neural** network, **achieving 93% accuracy even on limited datasets**.
- Automated the development pipeline from project setup to IoT device communication using various **Python** packages like **Mediapipe**, **OpenCV**, **Tensorflow**, **NumPy** **Scikit-Learn** and **Home Assistant**.

Candle in Dark
Flutter, Dart, Firebase, Google Cloud, XML
https://muditgarg48.github.io/candle_in_dark_web/

- Ideated and developed a **cross platform responsive app** using **Flutter**, **Firebase** and **Google Cloud**, serving as a platform for all the info for the newly arriving students of Trinity College to know everything about Trinity and Ireland.
- Implemented several interwoven intricate systems including **user authentication using Google Sign-In**, **user authorization**, **role-based access**, **feedback collection system**, **light/dark mode**, **admin panel**, etc.

Mar 2024

Peer to Peer Emergency Responder System
Python, Socket Programming
https://github.com/muditgarg48/p2_evac_system

- Designed a **peer-to-peer communication system** using **Python** with an ability to send messages within the same network without a server and implemented the system for an emergency evacuation scenario.
- Gained both theoretical and practical knowledge about utilizing **socket programming** and various networking protocols like **UDP**, **RDT 3.0** and **CRC** to improve the quality and security of the network while maintaining the privacy and integrity of the messages exchanged within the network.

Mar 2022

CERTIFICATIONS

Oracle Cloud Infrastructure 2024 Generative AI Certified Professional	Oracle MyLearn	2024
Career Essentials in Generative AI	Microsoft, LinkedIn Learning	2024
Google AI Essentials	Coursera	2024
Programming Foundations of Visual Studio Code with Git	LinkedIn Learning	2022
Learning C	LinkedIn Learning	2022
Technical Support Fundamentals by Google	Google, Coursera	2021

ACHIEVEMENTS

- Placed in first position in the Game of Codes 2019, a coding competition hosted by my college society and participated by more than 200 participants.
- Scored a 92.6% percentile in the highly acclimated national entrance exam, Joint Entrance Exam (JEE) Mains 2019 held in India and taken part by more than 12 lakh engineering students.
- Mentor of my school’s computer club (SHCC) for 2 consecutive years with a successful track record of providing mentorship to 10+ students and successfully hosting more than 5 technical events for the school’s Teknovation week.