# Hamza Gabajiwala

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# **SKILLS**

**Programming Languages** Python, C++, C#, Java, JavaScript, TypeScript

DatabasesMySQL, SQLserver, PostgreSQL, PL/SQL, Firebase, MongoDBWeb/App DevelopmentHTML, CSS, Bootstrap, AJAX, RESTful, Flutter, React, AngularBackendFlask, Django, Selenium, Spring Boot, OpenGL, WebDriver, PHP

Containerisation Docker, Kubernetes, Git, Postman, Jenkins, JIRA

Machine Learning NumPy, Pandas, Keras, TensorFlow, PyTorch, scikit-learn

### **EDUCATION**

### Trinity College Dublin

September 2022 - August 2023

- M.Sc. in Computer Science (Specialising in Augmented and Virtual Reality)
- **Courses**: Computer Vision, Artificial Intelligence, Mathematics of Light and Sound, Real-Time Rendering/Animation, Research and Innovation, Machine Learning, and Augmented Reality.

### **NMIMS University**

June 2018 - April 2022

- GPA: 3.45/4 B. Tech in Computer Engineering
- **Courses**: Artificial Intelligence, Soft Computing, Advanced Image Processing, Data Structures, Big Data Analysis, and System Security.

# **EXPERIENCE**

TIAA GBS - Software Developer

June 2021 - June 2022

- Successfully led an independent effort to migrate over 150 automation test cases from **Selenium** to **WebDriver** within an impressive 14-day timeframe.
- Demonstrated exceptional proficiency in leveraging **Jenkins** as a robust **CI/CD** platform by effectively automating test cases assigned on **JIRA**.
- Recognised with a "Pat on the Back" award for reducing downtime in data collection by 50%, using **RestAPI** for fetching data, and seamlessly integrating it into the automation test scripts.

#### **NDT Solutions** - Web Developer

May 2020 - July 2020

- Successfully translated UI/UX designs and user requirements into a responsive and user-friendly front-end code. Showcasing a keen eye for detail and an innate understanding of **UX** principles.
- Leveraged front-end technologies, including **HTML5**, **CSS3**, **JavaScript** and **Bootstrap**, to build an interactive website, elevating user engagement.
- Identified and resolved bugs and issues, ensuring a smooth and error-free user experience, and tested the website on updates across various browsers and devices.

### **PROJECTS**

#### **Enhancing Model Generalisation using cGANs** - Dissertation

- Revolutionised Data Collection and Annotation using synthetic images, boosting Machine Learning models' performance on unseen data.
- Implemented state-of-the-art transfer learning models like **ResNet50** and **MobileNetV3** using **Keras** and **TensorFlow** to train the **Conditional GAN**.
- Discovered that cGANs learn and leverage underlying dataset patterns to generate novel information.

#### Holoway - Virtual Meeting Room

- Developed a Virtual Meeting Room following the Test Driven Development methodology. Prioritising test creation before code implementation to ensure exceptional software quality.
- Utilised **C#** within **Unity** to create the **Oculus Quest 2** headset application and a Desktop application to allow users to interact with each other and objects in the virtual meeting rooms.
- Adopted the Extreme Programming methodology, dividing the team into pairs for each sprint, emphasising pair programming. Facilitated seamless knowledge, elevating the overall code quality through real-time code reviews.

# **PUBLICATIONS**

- Comparative Analysis between InceptionResnetV2 and InceptionV3 for Attention Based Image Captioning
- Comprehensive Review of Various Optimization Algorithms for Image Captioning