# Hamza Gabajiwala

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# SKILLS

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| **Programming Languages** | Python, C++, C#, Java, JavaScript, TypeScript |
| **Databases** | MySQL, SQLserver, PostgreSQL, PL/SQL, Firebase, MongoDB |
| **Web/App Development** | HTML, CSS, Bootstrap, AJAX, RESTful, Flutter, React, Angular |
| **Backend** | Flask, 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](https://ieeexplore.ieee.org/abstract/document/9587514)
* [Comprehensive Review of Various Optimization Algorithms for Image Captioning](https://ieeexplore.ieee.org/document/9725562)