

# Seunghyun Im

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 Sheffield, United Kingdom

 Seunghyun Im

 GitHub

**MComp student in Artificial Intelligence and Computer Science** at the University of Sheffield with a passion for emerging technologies and complex problem solving. A fast learner, self-motivated engineer with research experience at the **Insigneo Institute**.

## PROFESSIONAL EXPERIENCE

### Faculty Rep

*University of Sheffield*

10/2025 – Present | Sheffield, United Kingdom

#### Volunteer Job:

- **Presented** the student's experience on their modules in the meeting with the Student Union.
- **Proposed** ideas to enhance student's study environment.

### UG Demonstrator

*University of Sheffield*

09/2025 – Present | Sheffield

#### Part-time Job:

- **Participating** in a first-year module tutorial session to support students in understanding **Ruby**.

### Summer Research Placement

*Insigneo Institute*

06/2025 – 09/2025 | Sheffield, United Kingdom

#### Full-time Job (14 weeks):

- Contributed to a high-level research initiative in partnership with the **University of Sheffield** and the **NHS**.
- Implemented and tested algorithms using **Python** and **MATLAB**; trained on the university's **HPC** system using **Linux** commands.
- Developed programs to **analyze** MRI and CT lung images for classifying different lung types (asthma, COPD, healthy).
- **Published** a poster summarizing the project results.
- Contributed significantly to the research project and earned a **co-author** position.

### Co-Secretary

*Korea Society of University of Sheffield*

09/2024 – 09/2025 | Sheffield, United Kingdom

#### Volunteer Job (1 year):

- Secured **sponsorships** by liaising with multiple companies and organizations.
- Successfully onboarded **Jongga** as a sponsor for Sheffield Korea Day, enhancing event visibility and credibility.

### Interpreter

*ConnectorS*

09/2024 – 09/2024 | Sheffield, United Kingdom

#### Part-time Job:

- Provided on-site English–Korean and Korean–English interpretation for business meeting with **Sheffield Hallam University**.

### Sergeant

*Republic of Korea Army*

09/2021 – 03/2023 | Seoul, Korea, Republic of

#### Full-time Job (18 months):

- Led a squad as a **squad leader**.
- **Repaired** and **managed** telecommunication devices, such as walkie-talkies, PRC-999K, and TMR units, along with their associated components (e.g. generator).

## EDUCATION

### MComp Artificial Intelligence and Computer Science

*University of Sheffield*

09/2020 – present | Sheffield, United Kingdom

Bachelor's Degree (Year 1-3) : **2:1**

Integrated Master : **Present**

- Functional Programming (77%)
- AI Group Project (96%) - Project assigned by IBM
- Logic in Computer Science (62%)
- Introduction to Software Engineering (73%)
- The Internet of Things (70%)
- Dissertation Project (62%)
- Computer Vision (61%)
- Managing Engineering Projects and Teams (74%)
- Global Engineering Challenge (Distinction) - Best Solution Award
- Engineer You're Hired (Distinction)
- Machine Learning and Adaptive Intelligence (Present)
- Parallel Computing with Graphical Processing Units (GPUs) (Present)
- Robotics (63%)

### KIS Diploma

*Kodaikanal International School*

07/2013 – 06/2019

- Graduated from Indian IB school.

## COURSES

### AI-SW Education

*Goorm*

06/2022 – 05/2023 | Remote, South Korea

- Completed sessions on AI, data analysis, and machine learning by using Python.

### Academy

*SBS Game Academy*

06/2016 – 09/2019 | Busan, South Korea

- Studied Unity, Adobe After Effects, and Maya.
- Implemented games using Unity in C#.

## AWARDS

### IBM prize - Runners Up 2024

*IBM and University of Sheffield*

2024

- Awarded Runner-Up of the Year by IBM and the University of Sheffield..

### Best Communicated Solution, Best Overall Solution, Best Report

*University of Sheffield*

27/03/2021

- Awarded - *The Global Engineering Challenge*.

## **PROJECTS**

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### **Robotic Arm Competition**

*Siemens Digital Innovation Zone (DIZ)*

10/2025 – Present

- Designed various 3D mechanical components using **Solid Edge CAD software**.
- Programmed solutions to complete obstacle-based problems.

### **Turing Project**

*Geospatial Data Correction Project*

09/2025 – 06/2026

- Developed a correction system for UAV imagery and coordinate datasets to resolve **misalignment** problems.
- Implemented a **U-Net** model to segment tree crowns from aerial images and exported into **QGIS** shapefile.
- Discovered a '**Sliding Grid**' algorithm to automatically realign the coordinates to the geometric **centroids** of detected features.
- Successfully completed a functional **demo** and currently refining the model for **high-complexity** datasets.

### **Summer Research Placement**

*Contrast agent free regional ventilation imaging in CT and MRI*

06/2025 – 10/2025

- Developed a **Quadtree** algorithm for MRI lung image analysis using **Python** and **SimpleITK**; evaluated 2D and 3D models using Pearson correlation, MSE, and MAE metrics.
- **Segmented** CT lung images into six parts and analyzing heterogeneity using specific gas volume metrics under three different lung conditions.
- Generated heatmaps with **OpenCV** to illustrate lung heterogeneity and to compare Quadtree and Octree MRI representations.
- Designed a summarized **poster**

### **The Internet of Things**

*RC Car*

01/2025 – 06/2025

- Programmed an RC car using **ESP32** and **C++ (Arduino)**.
- Integrated **ESP-IDF** to connect the car to a web for remote control.

### **Dissertation Project**

*Sports video classification and summarisation*

06/2024 – 06/2025

- Developed two GUI softwares application utilizing **CNN** and **LSTM** models trained on the **UCF-101** action video dataset using **PyTorch**.
  - **Classification:** Categorises the scanned video (**94%** accuracy).
  - **Summarization:** Generates condensed highlight videos.

### **Software Development for Mobile Devices**

*Real-estate Software*

09/2024 – 01/2025

- Engineered an Android-based application using **Android Studio** to streamline property repair requests and management.
- The app enables the customers to submit, update, and track their complaints.
- Integrated real-time location and time detection.

## **SKILLS**

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### **Graphical Skills**

- Adobe : Premiere Pro, Illustrator, Photoshop, After Effect
- Maya
- CAD
- SimpleITK
- QGIS

### **Technical Skills**

- C#
- C++
- Java
- Python
- Ruby
- JavaScript
- Haskell
- Unity
- ROS
- OpenCV
- IBM Watson
- Pytorch
- NumPy
- Microsoft Office Applications
- Linux
- iOS
- Windows
- MySQL
- Android Studio
- MatLab

### **Soft Skills**

- Leadership
- Team management
- Fast communicator
- Time management
- Experienced in managing flexible projects within high-pressure environments
- Team planner
- Open and passionate to learn technical skills
- Flexible in adopting new skills
- Agile

### **Language Skills**

- Korean
- English