

Adelaide, Australia

Irhas Gill

github.com/Girhas

<https://www.linkedin.com/in/irhasgill>

irhasgill.com

+61 401 916 369 | igill566@gmail.com

EDUCATION

The University of Adelaide - Adelaide, Australia

July 2021 – July 2025

Bachelor of Computer Science Advanced, GPA: 6.4/7

WORK EXPERIENCE

Maptek undergraduate software engineer

Feb 2023 – Present

Continuing the work completed during the internship as a casual worker alongside full-time study. This mainly was to finish a key block analysis project and polish the tools created for PointStudio software.

Maptek software development internship

Nov 2022 – Feb 2023

Worked on a mean-shift spherical clustering algorithm in C++. The algorithm clustered discontinuities based on how similarly they were oriented. This helped detect instabilities in the walls of mines.

Inverse kinematics of robotic arm – Adelaide rover team

Oct 2021 – Feb 2022

I used ROS visualization tools (Rviz and gazebo), libraries (moveIt) and custom URDF models to solve the inverse kinematics of the Adelaide rover's robotic arm.

PROJECTS

Block compression project

Jul 2023 – Nov 2023

Participated in block compression challenge for third year computer science students at Adelaide University to create efficient and fast lossless compression of 3D models. Worked with 5 other students on different compression algorithms for the competition.

Covid-19's impact on the air quality of Australia

Aug 2021 – Feb 2022

Python visualisation project to answer the question "To what extent has Covid-19 impacted Australia's air quality?". Dataset from openAQ was analysed. Visualisations included animated scatter map plot of Australia and stacked line charts.

Detecting hip migration in x-ray images using artificial intelligence

Jul 2022 – Nov 2022

Professor Said Al-Sarawi supervised me as we built and trained several Convolutional Neural Networks on TensorFlow to compare their accuracy in detecting hip migration. The models were built on YOLO 4, ResNet and VGG-16 networks.

LANGUAGES/Frameworks

Proficient: C++, C, MATLAB

Experienced: JavaScript, Python, React, Vue

ADDITIONAL EXPERIENCE AND ACHIEVEMENTS

- **Competitive programming club Committee member (2022-present)/ICPC** – As the industry liaison I was responsible for contacting software companies to gain sponsors for the CPC. This money was used to host events such as the ANZAC competitions and ICPC competitions.
- **Unihack (2022)** - Developed a tinder-like mobile app to pair students with study groups near each other. I was mainly responsible for the login/authentication process.