

# SHUYUAN ZHANG

EH8, Edinburgh

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A Computer Science student at the University of Edinburgh, with experience in C#, Python and Java and a wide range of interests including 3D modelling and game development. Practical experience with OpenCV-python, YOLOv5 model training and dataset augmentation and QR / Aruco code identification. Recent focus on Unity development with experience in several hackathons and a team project.

## EXPERIENCE

**JULY 2022 – SEPTEMBER 2022**

**TENCENT GAMES OPEN COURSE TRAINEE FOR GAME CLIENT DEVELOPMENT,**  
TENCENT GAMES

Trainee at Tencent Games Open Course for University Students 2022, with focus being on Unreal Engine, Blueprint and C++. This open course requires one to pass an online interview and an online examination composing of coding challenges and several quizzes, and course content involves topics including rendering, communications and network, physics, AI, animation and etc.

**JUNE 2021 – SEPTEMBER 2021**

**ALGORITHM ENGINEER INTERN,** WUHAN TIANYU INFORMATION INDUSTRY

Image Recognition: Augmented and cleaned large datasets to train YOLOv5 models to help on tasks like human-car traffic analysis.

OpenCV-python: Improved QR code detection using modified public APIs; Aruco code detection in a time-sensitive and large-scale context.

## EDUCATION

**2020 - 2024**

**COMPUTER SCIENCE,** THE UNIVERSITY OF EDINBURGH

UG2 Informatics Student Representative.

Achieved high marks in various courses in Year One, and above-average marks in all mandatory and elective courses in Year Two. Details can be seen in the Courses section.

**2017 - 2020**

**JOINT HIGH SCHOOL DIPLOMA,** MAPLE LEAF INTERNATIONAL HIGH SCHOOL

Member of the Zhou Enlai Class and later the Honoured Zhou Enlai Class.

High school diploma under both Chinese and Canadian Curriculum (British Columbia).

Calculus 12: 93; Physics 12: 93; Chemistry 12: 93; Economics 12: 96; CSS 12: Humanities: 95;

Mandarin 12: 95; Media Design 12: 89; English Studies: 80; Pre-Calculus 12: 97.

Regular volunteering activities.

## SKILLS

- Unity (C#) Development
- Python scripting (dataset cleaning and augmentation, visualization)
- 3D Modelling using Blender
- Computer Vision (OpenCV-python)
- Team Leading

## COURSES

### YEAR 1

<b>Computer Aided Design</b> - DESI08137	72	A3
Inf1 - Introduction to <b>Computation</b> - INFR08025	95	A1
Introduction to <b>Linear Algebra</b> - MATH08057	90	A1
Inf1 - <b>Cognitive Science</b> - INFR08020	75	A3
Inf1 - <b>Object-Oriented Programming</b> - INFR08029	88	A2
<b>Calculus</b> and its Applications - MATH08058	66	B

### YEAR 2

Inf2C - Introduction to <b>Computer Systems</b> - INFR08027	90	A1
<b>Discrete Maths</b> and <b>Probability</b> - INFR08031	78	A3
Inf2D - <b>Reasoning</b> and <b>Agents</b> - INFR08010	74	A3
Inf2 - <b>Software Engineering</b> and <b>Professional Practice</b> - INFR08032	76	A3
Inf2 - Introduction to <b>Algorithms</b> and <b>Data Structures</b> - INFR08026	81	A2
Inf2 - Foundations of <b>Data Science</b> - INFR08030	75	A3

## ACTIVITIES

### HACKATHON

#### HACK THE BURGH VII

[HTB 8: M&S In-store Navigation](#)

Chose the challenge released by one of the sponsors M&S to help customers quickly locate items in the store. Used Unity with C# scripts to develop a prototype, with frontend UI and backend functionalities interacting with a local database.

#### NEUROSOFT BIOFEEDBACK HACKATHON

Used Unity and C# to develop a prototype, with randomized game scenes. In-game statistics corresponding to patients' biofeedback signals and thus to motivate the patients to stick to their rehabilitation plans.

### COMPETITION

#### FUNCTIONAL PROGRAMMING COMPETITION, YEAR ONE

Drawing computer generated graphics using Lsystem, in Haskell. Fourth Prize.

### OTHER EXPERIENCES

#### EDITOR-IN-CHIEF, AI&BLOCKCHAIN SOCIETY

Weekly Newsletter on topics of AI, Blockchain and news about relevant competitions.

#### EDITOR, DATAFUN TALK

Edited and published an [article](#) for DataFun Talk, in the NLP fields (Text content understanding practice based on pre-trained models) based on a DataFun Talk brought by a Tencent NLP Engineer.