

# Mateusz Zaremba

Programmer, Mathematician, Graduate student

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## Currently

Studying towards MSc in Mathematics and Data Science at the University of Stirling

## Specialized in

C++, Python, R, Statistical Analysis, Big Data

## Research interests

Statistical analysis for data science, representing and manipulating data using R and Python programming

## Education

### University of Stirling, United Kingdom

2019-2021

MSc in Mathematics and Data Science

Representing and Manipulating Data (Merit-64%)  
Commercial and Scientific Applications (Merit-62%)  
Statistics for Data Science (Pass-50%)  
Networks & Graph Theory  
Data Analytics  
Modelling in Financial and Medical Systems  
Stochastic Processes and Optimisation  
Dissertation Project

### University of Abertay Dundee, United Kingdom

2015-2018

BSc with Merit in Computer Game Applications Development, 2:1

3rd year modules (GPA: 2.83):

Graphics Programming with Shaders (C+)  
Gameplay Mechanics Development (C+)  
Network Systems for Game Development (A)  
Artificial Intelligence (B)  
Professional Team Project: Planning and Prototyping (C+)  
Professional Team Project: Development and Delivery (C+)

2nd year modules (GPA: 4.17):

Data Structures and Algorithms 1 (A)  
Data Structures and Algorithms 2 (A+)  
Graphics Programming (A)  
Game Programming and System Architectures (A)  
Film and Game Genres (A)  
Mathematics for Application Development 2 (A+)

1st year modules (GPA: 3.63):

Computer and Graphics Architectures (A)  
Programming in C++ (A)  
Narrative Theory in Interactive Game Design (C+)  
Mathematics for Applications Development 1 (A+)  
Asset Production for Games (B+)  
Games for Change (B+)

## Funding Awarded

### The Data Lab MSc scholarship

Sep 2019-Aug 2021

Fully funded MSc place; £6500 towards tuition fees  
Training with Data Scientists

## Relevant Experience

### C++ Software Engineer Intern, Viastore

Jan-Feb 2019

Learned about:

- Relational and non-Relational Databases using SQL and C++
- Large distributed IT systems
- Business use of rapid prototyping

### Unreal Game Programmer Intern, Bohemia Interactive

Aug-Oct 2018

Project worked on: Vigor, post-apocalyptic survival game

Internship responsibilities:

- Networked gameplay programming
- UI programming
- Prototyping
- Developing new solutions based on already existing ones and bug fixing

### Lead Programmer, Abertay University: Professional Project

Sep 2017-Jun 2018

Projects worked on:

Mobile game for Junkfish Game Company

Retro platformer for Timex

- Engine: Unity
- Programming language: C#
- Platforms: Android (Junk Fish), Windows (Timex)
- git

Key responsibilities:

- Prototyping
- Game programming
- Source control maintenance: merging, pull requests, .gitignore

Team management:

- Kanban boards with GitHub Projects
- SCRUM (Deadlines setting, mentoring)

## Hackathons

### Gameplay Programmer/Design/Team Lead, Serious Game Jam

Jan 24-26,  
2018

Mobile game prototype:

Aid for lectures and students from the University of St Andrews,  
with preparation and explanation of their practical exercises

- Engine: Unity
- Programming language: C#
- Platform: Android
- gameplay video , git

### Gameplay Programmer/Design/Team Lead, AGDS 4-hour Game Jam

Nov 8, 2017

Brief visual novel with animations, telling a joke

Made in 4-hours with two artists

- Engine: Ren'Py
- Programming language: Python
- Platform: Windows
- gameplay video , git

### Gameplay Programmer/Design/Team Lead, Rainbow Game Jam

Aug 15-17,  
2016

Infinite runner chosen to be made in 48-hours with two other artists and a sound designer

- Engine: Unity
- Programming language: C#
- Platforms: Windows, MAC, Linux
- gameplay video , git , play in browser

### Gameplay Programmer, Global Game Jam 2016

Jan 29-31,  
2016

Easy pick-up game. My first Unity project and first game jam

- Engine: Unity
- Programming language: C#
- Platforms: Windows, MAC, Linux
- gameplay video

## Societies

**Member of Abertay Game Development Society:** 1st year project, 2nd year project

Sep 2015-Jul 2018

## Volunteer Experience

**Answering Questions About Mathematics and Coding on Quora**  
My Quora Answers

Jul 2019-Present

**Built and managed St Andrew's RC Cathedral website**  
<http://www.standrewscathedraldundee.com/>

Sep 2017-Aug 2018

**1st Year Class Representative at Abertay University**  
Listening to student feedback and liaising with lectures  
Attended training about leadership and teamwork

Sep 2015-Apr 2016

## Other Experience

**Warden, St. Ninian's Institute, Diocese of Dunkeld**  
Taking care of the St Ninian's Institute and its guests  
Welcoming at the reception and showing guests to their rooms

Oct-Dec 2015

**Waiter/Bartender, Drumoig Golf Hotel**  
Welcoming people at the reception  
Bartending  
Waitering

Apr-Aug 2015

**Office Assistant, University of Wroclaw**  
Calling vendors to set up appointments and gather information  
Post delivery  
Clerk duties

May-Aug 2013

**Younger Lifeguard, Wroclaw Water Park**  
Taking care of visitors safety and well being  
Stamina and wellbeing training

Jan-Aug 2009