### MComp Games Engineering student passionate about tools, network and engine development with a focus on C++.

Always eager to further my own knowledge and share what I know with others.

# **Notable Projects**

Midori Engine Game engine written in C++ built from scratch with an API-agnostic 3D renderer.

**GNAT** C++ library for easy peer-to-peer networking with a custom communication protocol.

WinTUI C++ library for easy to navigate, fully customisable UI in the Windows terminal.

Unity 2D platforming game. A link to the WebGL build can be found on szy.wtf. Flip

Dissertation Paper investigating implementations of peer-to-peer networking in modern games.

### Education

### Newcastle University [2015 - Present]

Parachute Club > Since joining the club in the first year, have been an active member in activities and events.

> Became club treasurer and helped plan out many events for the other members alongside gaining new responsibilities.

Physics > Implemented collision calculations with impulse and reflections between squares and circles.

> **A\*** pathing added for AI navigation around walls and obsticles.

Graphics Gained familiarity with writing and debugging GLSL Shaders in OpenGL.

> > Experience with matrix manipulation for rendering and animating scenes.

Team Project > Coordinated a small team as the lead programmer in an Android app development project.

> Distributed tasks and deadlines across my team with the **Scrum** methodology.

## Stage 4

Average of TBD% Adv. G. Proq. 96%

### Stage 3

Average of **75**% Dissertation 74% Games Prog. 82% Graphics Prog. 80% Concurrency 89% Cryptography 85%

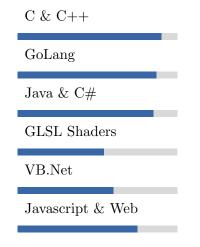
### Stage 2

Average of 78%

### Stage 1

Average of 73%

# Attributes and Skills



- Use custom rice for my **Emacs** and **Linux** configurations.
- Familiar with markdown and LATEX.
- Regularily maintain and add Github projects to my personal account: github.com/SzyJ.
- Can fluently communicate in English, Polish and currently learning Japanese.
- Enjoy Skiing, Snowboarding and Skydiving whenever possible.



# Work Experience

#### Formica Ltd.

- Documented the data storage, processing and flows throught all areas of the company, ensuring that all processing is GDPR compliant.
- ✓ Improved comapny productivity by developing scripts allowing for automation of processes such as extracting data from scans of purchase orders.
- Newcastle-Upon-Tyne, UK
- ? Analysed company systems producing documents relating to GDPR compliance.

#### **PCMS**

- Wrote code primerily in Java using the Spring framework, including a TDD and BDD workflow with various JUnit frameworks.
- Worked on the development of new features for web service APIs. Deployed QA WAS and Oracle Database servers.
- >\_ Extensive use of Mercurial version control in a professional environment. Developed scripts automating many processes previously done manually. Femiliar with continuous integration systems.
- As a team, **came 1st** in the Warwick University Hackathon **representing the company**. Also represented the company in other events such as University Careers Fairs.

- Placement Software Developer
  July 2017 July 2018
- Coventry, UK
- ? Worked on various projects from John Lewis and Marston's till software to RESTful external services. Implemented new features and fixed bugs reported through Jira.

### **IamVIP**

- Work by myself in a large variety of different night clubs every weekend, **constantly adapting to new environments**.
- Interacted with 50+ people every hour whilst applying marketing techniques to sell as many keyrings as possible and developing interpersonal skills.
- Worked in very busy conditions while managing the money that I made from each customer.
- Nightclub Photography
  Feb 2016 May 2016
- Newcastle-Upon-Tyne, UK
- ? Promoted and marketed myself as a photographer in busy nightclubs taking professional pictures and selling keyrings.

#### Other places of employment

Research Intern at EventPad: Finding contact leads to surpass the daily goal each day.

**Shop Assistant in CEX in Manchester**: Showing customers how electronic products work and testing incoming devices.

Low Voltage Appliance installation in Poland: Assistance with the installation of appliances such as alarm systems and sattelite dishes for private homes and businesses.

### References

References available upon request. Please contact me via e-mail or phone