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

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.

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

Education

Newcastle University [2015 - Present]

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

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

Dissertation > Investigated the implementations of **netwoking in** games.

> Implemented an API written in C++ for Client-Hosted and Peer-to-Peer netwoking.

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 developement project.

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

Stage 4

Average of **TBD**% Adv. G. Prog. **96**%

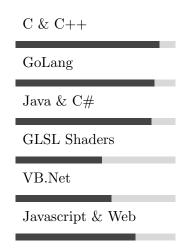
Stage 3

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



- **\(\Delta\)** Use custom rice for my **Emacs** and **Linux** configurations.
- Familiar with markdown and LATEX.
- Regularily maintain and add Github projects on 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.
- GDPR Compliance Intern ■ Jun 2019 - Aug 2019
- 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