Jakub Jan **Duchniewicz**

JUNIOR SOFTWARE ENGINEER · EMBEDDED AND GAME ENGINE DEVELOPER

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"Success is 5% talent and 95% hard work"

Summary

I am a passionate and hard-working person, therefore I do a wide range of technology-related activities in my free time, such as constantly tinkering with my Linux installation, customizing it to my needs or developing time-saving scripts and plugins. I have already built successful and open-minded teams, proving my capabilities in this area. I believe that helping others is as valuable as my own technical contribution to the team.

Education

Warsaw University Of Technology   *Warsaw*

B.Sc. IN COMPUTER SCIENCE   *Oct. 2016 - Present*

Bachelor's Thesis: FPGA based hardware accelerator for musical synthesis for Linux system.

Experience

Samsung Electronics   *Warsaw, Poland*

JUNIOR SOFTWARE ENGINEER   *Feb. 2018 - Mar. 2020*

- Improved Tizen Operating System Broadcast middleware (C++/C/Arm assembly). Managed performance in an embedded system, through code restructurization and thread-wise code improvement.
- Improved performance of code in major broadcasting pipelining module by aware refactorization and smart usage of C++17 STL and Boost library.
- Improved overall health of code, by analysis of coredumps and various system logs. When deemed necessary provided other teams with ready solution.
- Developed from scratch a multithreaded C compliant middleware process, with custom thread work queue implementation.
- Worked with version control tools (git, p4) and in an agile environment (scrum).
- Developed bash and python scripts aiding development and analysis of problems.
- Developed python utility program for automatisation of defect analysis.
- Travelled to Korea to aid with defects management during commercialisation and to offer quick support.
- Worked in a diverse multi-cultural environment, giving helping hand those who needed it.

Samsung Electronics   *Warsaw, Poland*

INTERN   *Dec. 2017 - Feb. 2018*

- Supported in project management and knowledge transfer from other R&D Institute.
- Based on good performance and analytical skills got an offer for full-time work.

BoSport/Beskid Ski Arena   *Chałupy/Szczyrk, Poland*

KITE/WIND/SKI INSTRUCTOR   *Jun. 2014 - Sep. 2017*

- Worked with all kinds of people, teaching them and maintaining good relations througout the years following.
- Taught in various changing conditions, always taking responsibility for life of others.
- Taught in both Polish and English.

Extracurricular Activity

PolyEngine   *Warsaw*

DEVELOPER   *Oct. 2017 - Present*

- Reimplemented Entity Component System systems.
- Refactored code and cleaned architecture of engine.
- Developed various necessary features during gamejams (both gameplay and engine-wise).
- Developed 3 games during Global Game Jam 18/19 and Slavic Game Jam 18.
- Developed efficient data structures for a game engine: string and queue with STL compliance.

KNTG Polygon   *Warsaw*

Vice President   *Oct. 2017 - Jun. 2019*

- Organised weekly meetings for student game development group Polygon.
- Gave two talks on Modern C++ usage and easily overlooked nuances.
- Helped organise game jams (Polyjam 2018/2019).

Game Dev Fest 7 and 8   *Warsaw*

Event Organiser   *Nov. 2018 - Jun. 2019*

- Planned and realised two 4-meeting editions of Game Dev Fest: invited lecturers and managed sponsorship of both events.
- Managed sponsorship funds and promotion of both events.
- Vice-organised two events in November 2017 and June 2018

Skills

Programming	C++17, C, C#, ARM/x86 assembly, Python, Bash, OpenGL, LaTeX, Verilog
Technical	FPGA, Electronics, Microcontrollers, RTOS, Linux Kernel, DSP, Network Stack, IoT, Game Engine Architectures
Languages	Polish, English, German, Spanish

Honors & Awards

2019	**Honorable mention**, Warsaw Film School Game Jam VI	*Warsaw, Poland*
	"Eternal Feud" - Low-poly, competitive co-op, made in a duo team.	
2018	**Honorable mention**, Static Code Analysis Competition - Samsung Electronics	*Global*
2017	**2nd Place Overall, 2nd Place in Innovation**, Polyjam, Global Game Jam 2017	*Warsaw, Poland*
	"Ommm" - Controlling a monk with the power of your voice.	