

# Jakub Leszczak

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## WORK EXPERIENCE

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### Senior Rust Backend Developer & Teamlead

Aug 2022 -

#### BeyondPlay

Remote, Europe

- Built Jackpots product for online gambling following strict regulations and certification process
- Closely worked with clients: LeoVegas, Casumo, ComeOn, Pixelbet
- Took full responsibility over the product and leading the project  
(Rust, TypeScript, Node.js, React; MongoDB, Redis; Docker; CI/CD - Github Actions)

### Senior C++ Software Engineer

Mar 2021 - Oct 2022

#### Viessmann

Wrocław, Poland

- Developed Telemetry Control Unit - heat pump diagnostics component
- Implemented diagnostic protocols: UDS, DoIP, DoWS over CAN, ethernet, and WiFi
- Patched open source projects i.e.: BusyBox, glibc, Linux kernel
- Implemented secure WebSocket server based on uWebSockets and OpenSSL  
(C++, Bash; Linux; CMake, Yocto; DoIP, UDS, CAN; WebSocket, OpenSSL)

### Embedded C Software Engineer

Sep 2019 - Jun 2020

#### Nokia Shanghai Bell

Hangzhou, China

- Developed Linux kernel drivers and userspace utilities for 5G BTS products
- Developed software for intercommunication between BTS boards over backplane
- Implemented secure boot process using public-key cryptography  
(C, Shell, Bash, Python; Linux; Yocto; OpenSSL, sRIO, ethernet)

### Embedded C Software Engineer

Feb 2017 - Aug 2019

#### Nokia

Wrocław, Poland

- Developed U-Boot and Linux projects to support LTE and 5G BTS products
- Performed hardware bringups - implemented initial software for first OS bootup
- Debugged hardware using oscilloscope and JTAG (Lauterbach, OpenOCD)  
(C, Shell, Python; U-Boot, Linux; Kbuild, Yocto; mbedTLS; I2C, SPI)

### C++ Software Engineer

Nov 2015 - Jan 2017

#### Teleste

Wrocław, Poland

- Developed surveillance monitoring system used by many clients like: Paris police, Asfinag (Austrian roads monitoring), Finish trains
- Developed distributed, multithreaded software in C++ able to withstand load of tens of thousands of recording cameras scattered across entire countries
- Worked with many network protocols and libraries (Mongoose, gSOAP, cURL)
- Developed scalable statistics database handling 100,000 records a minute  
(C++, Python; PostgreSQL; WebSocket, HTTP, JSON-RPC, RTP/RTSP, SOAP)

## PROJECTS

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### Suckless desktop environment

[github.com/szatanjl/de](https://github.com/szatanjl/de)

Lightweight X11 (Linux) desktop environment based on suckless.org software.  
(C, X11, Linux)

## EDUCATION

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### BSc. Computer Science

#### Wrocław University of Technology

Thesis: Fluid Mechanics Computer Simulation

[github.com/szatanjl/thesis](https://github.com/szatanjl/thesis)

## SKILLS

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<b>Web</b>	Rust, TypeScript, Node.js
<b>Embedded</b>	Rust, C, C++, Shell, Bash; Linux, U-Boot; DoIP, UDS, I2C, SPI, CAN
<b>Networking</b>	HTTP, REST, WebSocket, JSON-RPC, BSD sockets API
<b>Cryptography</b>	libsodium, GnuPG, OpenSSL, mbedTLS
<b>Build Systems</b>	Make, Kbuild, CMake, Yocto, Cargo, npm, Yarn
<b>Databases</b>	PostgreSQL, MongoDB, Redis, MySQL/MariaDB
<b>Other</b>	Docker, GitHub Actions, Python
<b>Languages</b>	English (fluent), Polish (native)