WOJCIECH WALEWSKI

Fullstack Developer

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WORK EXPERIENCE

Fullstack Developer
HTD Health

📅 Jul 2022 – Dec 2022

- Developed dynamic healthcare apps using Ruby on Rails, Sidekiq, React, GraphQL, Redis, PostgreSQL

Firmware/Software Engineer
Department of Microelectronics and Computer Science

📅 Jan 2021 – Jul 2022

- Built Verilog firmware for an ultra-high speed digitizer board to be used in the International Thermonuclear Experimental Reactor (ITER) for plasma diagnostics.
- Developed and maintained a multi-threaded data acquistion and control software GUI in C++ with PyQt. Optimized a DMA data transfer routine.
- Performed various digital signal processing tasks using Python and Matlab.

Assistant Software Engineer
Fujitsu

📅 Aug 2020 – Jan 2021

- Maintained a remote testing framework for UEFI-based motherboards.
- Performed various scripting tasks with Python and bash.

FREELANCE PROJECTS

Escape room management system
Mysterious Room

📅 2019 – 2020

- Designed, implemented and maintained a central control system for the most popular escape room of Lodz.
- Created and deployed a locally hosted web UI for control using Flask and Bootstrap.

Escape room project
Porta Aenigma

📅 2019

- Designed and implemented various puzzles using Arduino microcontrollers and a simple terminal-based central control system.
- Maintained a puzzle based on the use of a Microsoft Kinect.

TECHNOLOGIES

Django | Flask | FastAPI | numpy
Ruby on Rails | Sidekiq | GraphQL
React | ApolloJS | Svelte | Redis

C++ | Qt5 | Verilog
Digital signal processing

LANGUAGES

English ●●●●●

German ●●○○○

EDUCATION

M.Sc. in Computer Science
Lodz University of Technology (WEEiA)

📅 Mar 2021 – Aug 2022

- Thesis topic: "Real Time Digital Pulse Processing from Radiation Detectors using Field Progammable Gate Arrays"
- Awarded first place for the best Master thesis of 2022 at WEEiA by SEP.

B.Sc. in Telecommunications and Computer Science
Lodz University of Technology (IFE)

📅 Oct 2017 – Feb 2021

- Thesis topic: "An IoT Smart Storage System". Built a smart storage solution using Django, MQTT, RPi and ESP8266 microcontrollers.
- Took part in the European Project Semester at Fachhochschule Kiel. Produced a business plan for Edur Pumpenfabrik revolving around Industry 4.0 technologies.

PUBLICATIONS

📄 Journal Articles

- P. Nowak vel Nowakowski, D. Makowski, and W. Walewski, "Pmt signal transmission for hard x-ray diagnostics of future toka-maks," *Journal of Fusion Energy*, vol. 41, no. 2, p. 18, 2022, ISSN: 1572-9591. DOI: 10.1007/s10894-022-00334-8.

- W. Walewski, P. Nowak vel Nowakowski, and D. Makowski, "Giga-sample pulse acquisition and digital processing for photo-multiplier detectors," *Journal of Fusion Energy*, vol. 41, no. 1, p. 8, 2022, ISSN: 1572-9591. DOI: 10.1007/s10894-022-00320-0.

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👥 Conference Proceedings

- B. Guzowski, R. Gozdur, T. Przerywacz, and W. Walewski, "Investigation of thermoelectric generators for alternative power supply systems," in *2019 IEEE XVth International Conference on the Perspective Technologies and Methods in MEMS Design (MEMSTECH)*, 2019, pp. 75–78. DOI: 10.1109/MEMSTECH.2019. 8817372.