Paweł Pietrzak

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Education   `2019 - 2023`

Warsaw University of Science and Technology

- Faculty of Power and Aeronautical Engineering
- Aerospace Engineering (Aerospace Systems specialty)

Work history   `2022.06 - 2024.01`

QuickerSim - Junior Simulation Software Developer

- Front-end development (TypeScript, React)
- Back-end development (Django, Node.js)
- Physics engine development (mechanical and fluid computations) (MATLAB)
- Writing research project documentation (LaTeX)

`2023.07 - 2023.10` **Warsaw University of Science and Technology** - Research Project Contractor

- Designing a system of coupled measurement devices, with Mobile&Web App (React Native)

`2022.05 - 2022.06` **Airbus Poland** - Production Engineering Intern

- Writing assembly manuals (English) based on technical drawings, data from SAP systems and 3D models

`Summer 2020` **TeFeNICA 2020: Joint Institute for Nuclear Research**, Dubna, Russia - International Intern
Project topic: *Cosmic ray measurements in automation cycle using Python programming*

- Created an application that receives, archives and displays data transmitted by a handheld cosmic ray detector.
- Serial communication, data processing and visualisation, design and GUI implementation.
- Familiarizaiton with issues related to the source, propagation and detection of cosmic radiation.
- Project presentation at the final seminar in English

Skills

Programming: Python, R, TypeScript (and JS), MATLAB, C.
Frameworks: Node.js, Django, React, React Native.
2D&3D CAD: AutoCAD, Creo Parametric, Siemens NX.
Languages: Polish (native), English (C1), Russian (A2).
Qualifications: driving license (B), electrical G1 qualification for voltages up to 1kV.

Projects

2021 - 2023 · **SAE AeroDesign Student Association**

- Association managment as a board member for 1 year.
- Unmanned plane construction for SAE AeroDesign competition (mechanics of flight calculations, workshop works, laminating).
- Writing and live presentation of a research paper about 5G C-Band impact on aviation.
- Co-writing the technical documentation for said competiton, creating and delivering the presentation about our aircraft.
- SAE EAST 22 competition - technical documentation co-author (1st place), presentation co-author and speaker (1st place);
- SAE WEST 23 competition - presentation co-author and speaker (4th place);
- SAE EAST 23 competition - presentation co-author and speaker (4th place);

2022 · **Moonwalker**

- Video game written in TypeScript simulating precision landing of a spacecraft.

2021 · **Hackathon NeuroHackaTor 2021**

- Conceptual design of vitals monitoring device using EEG, research of current solutions and papers on similar topics, feasibility study, team organisation.

2020-2021 · **SKA Students' Space Association**

- Thermal analysis of a balloon gondola in preparation for the Association participation in BEXUS scientific balloon experiment programme.

Courses

Year	Course
2023	MATLAB Machine Learning (MLML)
2022	Advanced programming in R (text mining, sentiment analysis)
2021	MATLAB Fundamentals
2021	Introduction to programming in R
2021	Basic tailoring course
2016	Introduction to Computer Science and Programming Using Python