Igor Bodnar

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Education

MEng Electrical and Electronic Engineering, Imperial College London

- **Year 2:** **1st** degree honours, Currently Year 3

Academic Qualifications

- **A-Levels:** Mathematics – **A*** , Physics – **A** , Further Mathematics – **A**

Work Experience

Modern Laboratory Technologies

Internship, August 2021

- Medical Company with Research and Development Department working on developing medical laboratory analysers and appliances
- Assisted in prototyping analysis machinery such as self tightening test tube holders using CAD
- Wrote microcontroller software in **C++** for PID temperature control in thermal shakers

Tutor Express

Employee, October 2021 – Present Day

- Organisation aimed to prepare and coach students applying to Russel Group universities
- Working as a Mathematics and Further Mathematics tutor for Year 12 students
- Preparing teaching material, planning and conducting teaching sessions
- Interacting with students and their parents to collect feedback, in order to ensure that material taught is matching the client requirements and expectations

IT skills and Languages

Programming Languages and Environments

- Proficient in **C++** and **GitHub**, including familiarity with **Linux** systems and **Bash** scripts
- Experienced in **Arduino** and **ESP32** programming through Arduino IDE
- Familiar with **VHDL** and **Verilog** through FPGA hardware design via Quartus vendor tool
- Knowledge of **Python** and **SQL**, via working with Django framework to construct back-end for a news portal website
- Working knowledge of **HTML**, **CSS**, **JavaScript** and **React**
- Currently exploring **Prolog** for AI applications

Design and Simulation Software

- Proficient in **MATLAB** and **Simulink** for simulation of electrical circuits with digital control, such as switch mode power supplies with voltage and current PID control
- Confident in designing and testing electrical circuits in **LTSpice**, such as designing voltage controlled oscillator and wave shaper circuits for an analogue music synthesiser
- Familiar with **NI LabView** through constructing signal processing chains
- Working knowledge of **Fusion360** and **Solidworks** for 3D modelling and printing

Other Software

- Confident with **Microsoft Office** (Word, PowerPoint, Excel).
- Working knowledge of **Inkscape** and **Autodesk Illustrator** for vector graphics

Languages

- **Russian**(Native speaker), **English**(Fluent), **Spanish**(B1), **Japanese**(Beginner level, JLPT N4 diploma)

Hobbies and Interests

- Doing DIY projects which include woodworking, blacksmithing, welding, machining and additive manufacturing
- Playing electric guitar and bass (self-taught), composing music with help of digital audio workstations
- Outdoor sports (Snowboarding, Wakeboarding)
- Partaking in online courses, currently learning full-stack development with Python
- Watching lectures given by professors of different universities i. e. G. Strang(MIT, “Linear Algebra”), V. Surdin(Sternberg Astronomy Institute, “Methods of measurement in astronomy”), A. Panchin(Institute for Information Transmission Problems, “Genetic Engineering”)