Jerzy Aleksander Gorak BEng MIET
Software and Controls Engineer

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A highly self-motivated and problem-solving individual proven to overcome the toughest of the challenges thrown at them. An excellent team player and group leader who gets the work done. Strong theoretical and practical knowledge of multiple software, electrical and electronic engineering areas. My areas of interest are embedded systems, software development, and hardware. I am always happy and driven to tackle new challenges that allow me to self-develop. I am keen on further career development, such as training, completing a master's degree in the future and aiming for CEng status.

Software Tools Skills		Programming Languages		Hardware Skills	
• Linux	• MS Office	•HTML	• Embedded C	• MATLAB	• Oscilloscope	• Soldering Iron
• GIT	• VS code	• CSS	• Python	• Simulink	• 3D printer	• Schematic Design
• CANape/alyzer		• JS	• Arduino	• PLC	• 3D modelling	• Multimeter
						• Breadboards

Work Experience

Software and Control Engineer
Bladon Micro Turbine | Dec 2023 - present

- Managed, implemented, and maintained CAN Database DBC for subsystem communication within the generator unit.
- Wrote lab reports and documentation: All ECUs flashing procedures, software testing reports and R&D experiments.
- Refactored and expanded Bladon's software Simulink functions library.
- Resolving application software issues, e.g. Power Distribution ECU, MCU control logic for fuel/cooling system and IO in Simulink.

Graduate Software and Controls Engineer
Bladon Micro Turbine | Aug 2022 - Dec 2023

- Worked for Bladon MT, which has been designing and manufacturing micro-turbine gen-sets (MTG).
- Scripting unit tests and automation of tasks with MATLAB and Python,
- Tasked with diagnosing and solving live software and/or hardware machinery issues using Embedded C and Simulink.
- Analysed and processed machine data using Dewesoft, MATLAB, and Excel tools.
- Taken initiative and led the Software Continuous Improvement weekly meetings to improve the productivity.
- Led and managed the version control with GitLab - Excellent knowledge of Version control with Git.
- Solely responsible for designing, implementing and testing the Power Distribution Unit ECU software.
- I have written and captured software requirements for microcontrollers and other ECUs,
- Presented software engineering changes in front of department heads on a weekly basis.
- Worked closely with the electronics team for smoother software and hardware integration.

Teaching Assistant
QMUL| Sep 2020-2021

- Gained confidence in approaching and explaining niche concepts and knowledge to new students in the most simplistic and easily understood form possible.
- Helped students in Procedural Programming and Research practice classes.
- Gave feedback and graded students' submissions.

Education

Electrical and Electronic Engineering BEng
QMUL | Sep 2019-2022

- Graduated **with First Class honours** and received Principle's Prize for outstanding achievements.
- Final year Project: *"'Whack-A-Cube': an electronic cuboid object with tactile sensing and colour-blind friendly game toy"*.

Projects

Whack-A-Cube → Similar to Rubik's cube but with tactile soft faces and hall effect sensors.

Autonomous Vehicle Model–180 → Group project tasked. Vehicle to follow the line and avoid obstacles autonomously.

Own Website → designed and created portfolio website. Used plain HTML, CSS and jQuery.

Sentry gun → Turret-like device shooting water bullets, electrically controlled with horizontal and vertical barrel movements.