Jerzy Aleksander Gorak

[BEng EngTech MIET]

Software and Controls Engineer

Daventry, Northampton
georgeagorak@gmail.com - 07572780125
https://jurgon01.github.io/
linkedn.com/in/jerzy-gorak-beng-hons-engtech-miet-a04954197/

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	• Breadboards
• GIT	• VS code	• CSS	• Python	• Simulink	• 3D printer	• Schematic Design	
• CANape/alyzer		• JS	• Arduino	• PLC	• 3D modelling	• Multimeter	

Work Experience

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

- Worked for Bladon MT, which has been designing and manufacturing micro-turbine gen-sets (MTG).
- Managed, implemented, and maintained CAN Database DBC for subsystem communication within the generator unit.
- Written lab reports and documentation: 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.
- Developing Unit tests, Model-in-the-loop, Hardware-in-the-loop tests and test specification for System tests.
- Leading data logger and telemetry project planning, development and managing two external companies for delivery.

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

- 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 productivity.
- Led and managed the version control with GitLab with excellent knowledge of version control management.
- Solely responsible for designing, implementing and testing of Power Distribution Unit ECU software.
- Captured and written software requirements for MCU and other sub-controllers,
- 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 Principal'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 → Vehicle to follow the line and avoid obstacles autonomously.
Own Website → Designed and created portfolio website.
Sentry gun → Turret-like device shooting water bullets.