Odysseas Bouziotis

Mechanical and Robotics Engineer

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Professional Profile

I am a highly motivated and hardworking student, looking to further specialize in the field of robotics with huge interest in autonomous vehicles. I have a strong background knowledge in mechanical engineering and looking to broaden my horizons. I am proactive and seeking new challenges to learn and develop my skills.

Work Experience

Switch On Ltd **June 2023 - July 2023:** *Summer Internship*

Position Description: I was a member of a 12-person team working on a 20MW solar farm located on the outskirts of Blandford Forum, UK, in the renewable energy sector. Our primary focus was on delivering the electrical connections between the solar panels and the electrical substations, which would then transfer the generated electricity to the grid.

Learning Outcomes:

- Teamwork: Had to collaborate and communicate effectively to complete the installation of the electrical connections.
- Adaptability: Had to learn new skills and bring myself to an adequate working standard which was achieved through supervised guidance.
- Time Management: Had weekly deadlines and needed to effectively manage my time in order to deliver the allocated tasks.

Education

University of Birmingham **Completed:** *Sept.2020-July 2023*

Bachelor's Thesis: **Robotics for Medical Device Inspection.**
Academic Supervisor: Dr. Amir Hajiyavand
Representative Modules: Fluid Mechanics and Energy Transfer, Mechatronics and Control Engineering, Powertrain and Vehicle Engineering, CFD and FEA, and Sustainable Energy and the Environment.

University of Manchester **In progress:** *Sept.2023-Sept.2024*

Master's Thesis: **SLAM on an Unstable Platform.**
Academic Supervisor: Dr. Keir Groves
Representative Modules: Software for Robotics, Robotic Systems, Autonomous Mobile Robots, Robotic Manipulators, Cognitive Robotics and Computer Vision, and Robotic Systems Design Project.

Academic Experience

Integrated Design Project

A group design project in collaboration with 30 students from all engineering disciplines, to design a Direct Air Capture (DAC) facility responsible to capture 5000 metric tons of carbon dioxide.

Mechanical Design

A group project to design a speed reduction gearbox for a Wankel Engine for an unmanned aerial vehicle.

Software for Robotics

Individual python projects implementing ROS2 humble to create complete robot packages and visualizing them in RVIZ and Gazebo.

Robotic Systems Design Project

A group project to acquire hands-on experience by assembling the Leo Rover kit to accommodate sensors, a robotic manipulator and a micro-computer(NUC).

Skills

- Programming Languages: **Python, C, MATLAB.**
- 3D CAD Design Softwares: **Autodesk Fusion 360 and SolidWorks.**
- Software Packages: **Ansys Workbench, Abaqus, CES Edupack, Gazebo, and RVIZ.**
- IDEs: **Visual Studio Code, CodeBlocks, and Pycharm.**
- Extensively Used Open Source Software: **ROS2(Humble).**
- Other Tools: **Excel, Word, PowerPoint, Latex, Colab, Jupyter Notebook, and Roboflow.**

Extracurricular Activities

- University of Birmingham: Member of University's Formula Student team (UBRacing).
- University of Birmingham: Captain of the basketball team, competed in Midlands Tier 4 league.
- Both Universities: Participated in workshop trainings on operating the Lathe, and 3D printers.

Interests

- Autonomous Systems
- SLAM Implementations
- Management
- F1

Languages

- Greek - Native
- English - Business Competence