

## **Daniel Dobos**

**Email:** daniel.dobos@uni.lu

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### **WORK EXPERIENCE**

#### **R&D Specialist in Data Science**

*Luxembourg Centre for Logistics and Supply Chain Management (LCL), Luxembourg  
2023 – Current*

- Developed and deployed machine learning models for energy price forecasting.
- Created a robust dashboard for visualizing and interacting with real-time energy pricing data.
- Designed and implemented a data pipeline for collecting, cleaning, and transforming data, stored in a SQL database.
- Contributed significantly to an open-source dashboard project in Python (<https://github.com/LCL-CAVE/manganite>). Taught a lesson on this project at MIT for masters students.
- Used locally hosted LLM for natural user input.
- Projects hosted and deployed on Hugging Face.

#### **Data Scientist & Software Engineer**

*Accord Energy Solutions, Aberdeen, UK  
2020 – 2023*

- Developed software for gross error detection for oil and gas pipelines, financed by Innovate UK.
- Consulted with clients like BP and Shell on software integration and use-cases.
- Used machine learning and deep learning methods for fault detection, aiding in hydrocarbon allocation.
- Service deployed as a web application and REST API using AWS services, built primarily with Python and Django framework.

#### **Electrical Engineer**

*Flyability, Lausanne, Switzerland  
2019 – 2020*

- Worked on redesigning the power circuit of drones.
  - Developed test equipment and automated testing code for PCB.
  - Validated and integrated new motor ESCs into the drone system.
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### **EDUCATION AND TRAINING**

**Ph.D. in Computer Science (Ongoing, Part-time)**

Robert Gordon University, Aberdeen, UK

2021 – 2025 April (Expected)

*Thesis submitted and waiting for review and defense*

*Thesis: Statistical and Computational Intelligence Techniques for Gross Error Identification in Flow Measurement Systems*

**M.Sc. in Autonomous Vehicle Dynamics and Control**

Cranfield University, UK

2018 – 2019

Thesis: *Information fusion in autonomous cars*

**B.Sc. in Mechatronical Engineering**

Budapest University of Technology and Economics, Hungary

2014 – 2018

Final grade: 4.5

Thesis: *Design of a Digital Pen*

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**SKILLS****Technical Skills:**

- **IT:** SQL, Python, Business process and IT design, Node.js, React.js, Web Design & Development, Java, Linux, Cyber Security
- **Data Science:** PyTorch, Deep Learning, Scikit-Learn, Statistical Modeling, Data Mining, Machine Learning, Microsoft Excel, OpenCV, Keras, Power Query, Power BI
- **Other:** Full-stack development, Data pipeline design, REST API development, AWS services

**Soft Skills:**

- Quick decision-making
  - Entrepreneurial skills
  - Networking and community building
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**PUBLICATIONS**

- *A weighted ensemble of regression methods for gross error identification problem*, 2023 IEEE Symposium Series on Computational Intelligence
- *A comparative study of anomaly detection methods for gross error detection problems*, Computers & Chemical Engineering, 2023
- *Weighted ensemble of gross error detection methods based on particle swarm optimization*, GECCO: Genetic and Evolutionary Computation Conference, 2021

- *Machine Learning Based Gross Error Estimation for Allocation Systems*, Global Flow Measurement Workshop, 2022
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## CONFERENCES AND SEMINARS

- **Air Transport Research Society World Conference, 2024**  
Lisbon, Portugal  
*Conference Speaker on Data driven approach for predicting air cargo turnaround time*
  - **European Aviation Conference, 2023**  
Luxembourg, Luxembourg  
*Panelist*
  - **Global Flow Measurement Workshop, 2022**  
Aberdeen, United Kingdom  
*Conference Speaker*
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## HOBBIES AND INTERESTS

- **Sports:** Tennis, Padel, Running, Hiking
  - **Traveling**
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