

Denis Gontcharov

Fluent in Dutch, Russian, English, French and German

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Education

KU Leuven — Leuven, Belgium 2013 – 2018

- Master of Materials Engineering: non-ferrous metals production and recycling.
- Bachelor of Engineering: major in Materials and minor in Chemical Engineering.
- Industrial Engineering exchange year at Grenoble INP, France.

Experience

Independent Consultant on Digital Transformation — Kalmthout, Belgium 07.2023 – Present

- Designed and implemented a data quality testing framework for a large industrial enterprise in renewable energy.
- Sold and implemented a Unified Namespace PoC to a Dutch welding manufacturer with a freelance partner.
- Sold and conducted a feasibility study for deploying a new manufacturing execution system at three aluminium smelters.
- Led a remote team to develop an interactive game about carbon emissions in the aluminium industry.
- Designed the game's architecture on [Azure](#) with CI/CD [DevOps](#) via Bicep.
- Created technical videos and blogs about the Unified Namespace as a developer advocate for the United Manufacturing Hub.

Data Engineer at Novelis (Aluminium Rolling & Recycling) — Berlin, Germany 05.2022 – 07.2023

- Led the data engineering on [Azure](#) for two in-house AI solutions, achieving €500k annual savings:
 - Dynamic recipe for the continuous annealing and solution heat treatment automotive line.
 - Transfer optimization of liquid metal from melting to holder furnaces in the recycling cast house.
- Developed and maintained data pipelines ingesting production data from shop floor [SCADA](#) systems to [Azure Databricks](#) build on top of [Azure Data Lake](#) storage.
- Regularly traveled to manufacturing plants to build trust and represent Novelis Digital to OT engineers and plant managers.

Data Engineer Contractor — Antwerp, Belgium 09.2020 – 04.2022

- Developed [PySpark](#) data pipelines feeding an AI recommendation engine used by 500 sales reps of a pharma multinational.
- Configured Airflow orchestration and Kafka streaming architecture for an early-stage IoT startup.
- Sold and conducted data analysis and [Python](#)/R coding workshops for PhD students and metallurgical engineers.

Junior Consultant Data Science at STATWORX GmbH — Frankfurt am Main, Germany 03.2020 – 08.2020

- Self-taught transition from process engineering to data and AI.
- Trained a U-Net for image segmentation, achieving top 20% in the Kaggle Steel Defect competition.

Process Engineer at TRIMET Aluminium SE — Essen, Germany 09.2018–01.2020

- Developed an application to analyse electrical data and process control parameters from two [SCADA](#) systems across two manufacturing plants.
- Developed a process control module with MATLAB, Simulink and Stateflow to steer the anode-changing operation.
- Identified the root cause of a substantial energy loss using statistical inference and design of experiments.

Skills

- **Code and Data:** [Python](#), [PySpark](#), [SQL](#), R, Databricks, Airflow, Kafka
- **Machine learning:** PyTorch (vision), Keras (R), scikit-learn
- **Cloud:** Azure Fundamentals and Azure Data Fundamentals certification, [Azure Bicep](#) IaC
- **DevOps:** GitHub Actions, Docker, Kubernetes, Helm, Linux
- **Manufacturing:** ibaPDA, AVEVA PI, United Manufacturing Hub, HighByte, Ignition

Voluntary work

President of the EIT RawMaterials Alumni 08.2018 – 01.2020

- Public speaker at the EIT RawMaterials Summit 2019 (500 people) and EIT Connect 2018 and 2019 (120 people).
- Managed an international team of six board members and one full-time employed Alumni Manager.