Education

M.Sc. in Data Science

Université libre de Bruxelles (ULB), Faculty of Science (2024–)

- **Bayesian Inference with Fisher Information Divergence**
  Master's dissertation on discretised Fisher-divergence-based posteriors for intractable discrete likelihoods.
- **EMG-Based Joint Angle Prediction**
  Ensembling models and Domain Adversarial Neural Network on sEMG; ranked 2nd.

M.Sc. and B.Sc. in Economics (M.Sc. Cum Laude)

Solvay Brussels School of Economics and Management (2014–2021)

  Minor: Statistics and Econometrics

Baccalauréat *Französisches Gymnasium zu Berlin* (2013)

Experience

Machine Learning Research Assistant

KU Leuven, Faculty of Bio-Engineering (cMACS) (2024–)

- Designed and trained YOLO-based object detection models for plastic item localisation in heterogeneous imaging conditions.
- Developed plastic-type classification models using cropped regions of interest with robustness constraints.
- Built an end-to-end prototype integrating detection, cropping, and classification packaged as modular Docker services.
- Established reusable ML data infrastructure enabling scalable experimentation.

Senior Associate, Risk and Treasury Consulting

KPMG GmbH, Frankfurt (03/2024 – 10/2024)

- Supported ECB on-site interest-rate-risk inspections at State Street Bank Germany.
- Implemented ALM and interest-rate-risk frameworks, including term-structure and fund-pricing components, for banking clients.

Supervisory Analyst, Banking Supervision

European Central Bank, Frankfurt (09/2021 – 09/2023)

- Owned and maintained the team's supervisory dashboards and underlying Python–SQL analytics stack, ensuring continuity after senior technical lead departure.
- Refactored and consolidated legacy reporting pipelines, standardising workflows used across supervisory missions.
- Led delivery of a core OMI Directorate-General–level analytical product, coordinating technical execution through to production and stakeholder sign-off.
- Prototyped an NLP-based tool for automated extraction of findings from supervisory and inspection documents.

Skills

- **ML & Statistical Modelling:** PyTorch, JAX, TensorFlow, scikit-learn, YOLO (Ultralytics), NumPy
- **Data & Systems:** Polars, SQL, Pandas, DuckDB, Apache Spark
- **Tooling & Infrastructure:** Git, Docker, AWS S3 & IAM, Label Studio
- **Languages:** English (C2), French (C2), German (C1)