

Malo van Donselaar

Engineering Student specializing in industrial systems optimization. Combining strong mathematical modeling skills with hands-on experience in manufacturing, simulation, and process improvement, I aim to design and optimize complex engineering systems.

📍 161 rue de l'Université, 75007, Paris, France ✉ malo.vandonselaar@gmail.com in <https://www.linkedin.com/in/malo-van-donselaar>

EDUCATION

Arts et Métiers Institute of Technology (ENSAM) — Paris, France

Combined BS × MS Engineering Degree

Sept 2025 - Jul 2027

GPA 3.8/4.0

Arts et Métiers is a member of ParisTech, a consortium of prestigious French institutions recognized for academic excellence, outstanding faculty, and world-class research laboratories.

- Ranked top 15% (202th/1266 Students).
- Mechanical/Electrical/Industrial Engineering: Design, Manufacturing, Fluid Dynamics, Thermodynamics, Material Science, Supply Chain.

Lycée Eugène Livet — Nantes, France

Intensive preparatory class, Mathematics, Physics, Industrial Engineering

Sept 2023 – Jul 2025

GPA 3.8/4.0

A highly competitive two-year program in France, designed to prepare top students for entrance exams to elite engineering schools. Provides accelerated, university-level training that demands rigor, discipline, and advanced problem-solving skills.

- Elite track in Physics & Engineering Sciences.
- Advanced Mathematics, Physics, Mechanical Engineering.

SELECTED PROJECTS

Manufacturing Project — Digital Twin Development of an Educational Microscope

Sep 2025 – Feb 2026

Team of 6 — Collaborative project with LEM3 industrial partner

Objective : Develop a digital twin of a microscope to simulate its behavior and support educational and demonstrative use.

- Collaborated with industrial partners to understand the physical principles, functional requirements, and mechanical architecture of microscope systems.
- Developed a digital twin integrating 3D modeling and dynamic simulations to replicate component behavior and system interactions.
- Created simulation-based usage scenarios to illustrate real operating conditions and enhance pedagogical applications.

Manufacturing Project — AI-Driven Workflow Automation

Sep 2025 – Feb 2026

Team of 5 — Python Development

Objective : Design and implement an automated workflow using AI-based tools to improve operational efficiency.

- Analyzed client processes to identify critical bottlenecks and opportunities for automation in operational workflows.
- Designed and implemented an automated pipeline using AI tools and n8n (low-code workflow automation platform), enabling task orchestration and data processing.
- Deployed and tested the solution on real client data, improving process reliability and reducing manual intervention.

Electromagnetic Aircraft Launch System — Modeling and Experimental Optimization

Sep 2023 – Feb 2025

Individual Project — Two-Year Research Project

Objective : Design, build, and analyze a scaled electromagnetic aircraft launch system to model and optimize launch dynamics under controlled conditions.

- Developed and validated a physics-based model of an electromagnetic aircraft launcher to predict velocity and performance, using experimental data for iterative calibration.
- Integrated position sensors and developed custom algorithms to derive real-time velocity and acceleration data, enabling the extraction of key flight parameters.
- Designed and built a scale electromagnetic launcher (aluminum frame, coils, power electronics, motion sensors) enabling repeatable high-speed tests for performance benchmarking and system optimization.

PROFESSIONAL EXPERIENCE

Chantiers de l'Atlantique — Shipbuilding and marine engineering

Jun 2026 – Aug 2026

Production Operator Intern — Outfitting Operations

- Incoming internship focused on ship outfitting operations within large-scale industrial production environments.

Private Tutor — Anacours (academic tutoring agency)

Sep 2025 – Jun 2026

Mathematics, Physics & English Tutor (High School Level)

- Delivered 250+ hours of one-on-one tutoring in mathematics, physics-chemistry, and English to high school students.
- Developed structured learning methodologies to strengthen core concepts and improve problem-solving skills.

- Prepared students for national examinations (Baccalauréat), achieving a 100% success rate.

HommeParfait — 3D-printed consumer products venture

Sep 2021 – Aug 2022

Founder — Product Design and Business Development

- Designed and manufactured 1000+ 3D-printed phone holders, managing the full product lifecycle from concept to production.
- Developed and managed an online sales platform, including website creation and digital marketing campaigns.
- Conducted B2B prospecting to secure bulk orders for corporate promotional products.

LEADERSHIP AND VOLUNTEERING

GaSole

Sep 2025 – Present

Volunteer for the association

- Participated in community clean-up and renovation projects (waste collection, repainting, tree planting) in an underprivileged housing estate to improve public spaces and residents' quality of life.

Arts et Métiers Junior Enterprise — Student-led consulting organization (Product Design, Operational Improvement, Strategic Advisory)

Jan 2026 – Present

Business Developer & Project Coordinator

- Prospected clients and conducted needs assessments to identify engineering and operational challenges, delivering tailored project proposals.
- Coordinated project execution by managing student consultants, ensuring alignment between client expectations and project deliverables.
- Maintained client relationships throughout the project lifecycle, from initial contact to final delivery.

TEDx Conference — International conference on ideas and innovation

May 2023

Event Volunteer — Operations and Speaker Support

- Managed participant reception and orientation, ensuring smooth flow and coordination during the event.
- Supported speakers with stage preparation and logistical needs, contributing to the successful execution of presentations.

AWARDS AND ACHIEVEMENTS

Swimming (50m Freestyle & 200m Relay) — 3 years at a Regional competitive level

2023

High school diploma with honors

2023

SKILLS AND INTERESTS

- Languages: **French (Native), English (TOEFL iBT: scheduled for Summer 2026), Spanish (Intermediate)**
- Programming: Python, LaTeX, SQL, HTML&Java (Website)
- Software: 3DExperience, Catia V5, SolidWorks, Abaqus, Simcenter STAR-CCM+
- Sports and Leisure: **Sailing** (7 years with **competitions**), **Swimming** (6 years with **competitions**), **Tennis** (3 years), **Golf**
- Linguistics: Passionate about cultural studies. Studied English for 15 years, Spanish (10 years)