



## Alexandre Bernard

21 Years Old - Driving License



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45 Desjardins Street, Angers, France

### Languages

**French** Native

**English** Proficient C1 | 985/990 TOEIC

**Spanish** Intermediate B1 | **Cervantes**

**German** Elementary A2

### Interests



**Space**

Participated in space innovation events and space-themed hackatons

#### <> Programming

Head of Computer Club at Arts et Métiers. I built SQL database and python scripts for multiple clubs

### Soft Skills

Passionate

Team Player

Curious

Persevering

### Software

CAD | CAM

3D Experience CATIA Solidworks

Simulation | Finite Element

Abaqus StarCCM+ ForgeNXT



Python

NumPy TensorFlow Pandas API

Machine Learning Finite Element



Rust

Finite Element

Tauri App

## Internship Application Feb to Sept. 2026

I am a graduate aerospace engineering student at Arts et Métiers (France) seeking an internship focused on space systems, satellite technologies and propulsions systems.



PORTFOLIO

### Projects & Internships



**Consultant Arts & Métiers Junior Entreprise**

2025

- Provided training in frontend technologies for ARPE PSY caritative
- Software Engineering and product design for different projects



**Finite element analysis software Arts et Métiers**

2025

- Developed software for static and vibrational analysis of beam structures in Python and Rust
- Lead a four person team for five months



**Research - BMG Machining Arts et Métiers**

2025

- Study of cryogenic assistance impact on tool wear for Bulk Metallic Glass machining
- Machining chip analysis using Scanning Electron Microscope and Python



**Workshop operator internship APMA**

2024

- Four week training in machining and metrology for precision mechanics, with a focus on aeronautical and space applications.



**NASA Hackathon NASA Space App Challenge**

2023

- Design of an interplanetary magnetic field analysis tool in python
- Applied machine learning to anticipate magnetic reconnection events

### Academic background

**Master of Science in Aerospace Engineering**

2023-2026

**Arts et Métiers, France**

- Angers: solid and fluid mechanics, materials science, CAD, electrical engineering and project management
- Bordeaux: Propulsion systems, materials, space and aeronautical systems, MBSE methodology for aeronautical projects

**Undergraduate Intensive classes in engineering**

2021-2023

**Valedictorian Engineering school ESEO, France**

**Technical degree in Mechanical Engineering**

2020-2021

**University of Angers, France**

**High School Diploma**

2020

**France**