



Alexandre Bernard

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I am a french graduate aerospace engineering student at Arts et Métiers Institute of Technology seeking a six month internship. I am eager to apply my engineering experience in projects that contribute to make space more accessible. My skills in finite element analysis and mechanical design could contribute to your projects.

Languages

French	Native
English	Proficient
Spanish	Intermediate
German	Elementary

Interests

Space

Participated in space-themed hackathons

Programming

Head of Computer Club at Arts et Métiers. Built SQL databases and Python scripts for multiple clubs

Soft Skills

Passionate Team Leader Curious
Persevering

Software

CAD | CAM

3D Experience CATIA Solidworks

Simulation | Finite Element

Abaqus StarCCM+ ForgeNXT

Thermal simulation | CAM

ForgeNXT

 Python

NumPy TensorFlow Pandas

FastAPI

 Databases

PostgreSQL

Professional Experience & Projects

2025 Engineering Consultant | Arts et Métiers Junior Entreprise

- Led product design and software engineering for 8 months on a connected device design

2025 Finite Element Analysis Software | Arts et Métiers

- Developed Python and Rust-based software for static and vibrational analysis of beam structures
- Managed a four-person engineering team for five months

2025 Material & Machining Research project | Arts et Métiers

- Studied cryogenic assistance effects on tool wear for Bulk Metallic Glass machining
- Performed machining chip visual analysis using Scanning Electron Microscopy

2024 Manufacturing Intern | APMA, France

- Completed intensive four-week training in precision machining and metrology for aerospace applications

2023 NASA Space Apps Challenge

- Developed python-based machine learning algorithms for interplanetary magnetic field analysis
- Led a hackaton team

Education

2023-2026 Master of Science in Aerospace Engineering

Arts et Métiers Institute of Technology, France

- Solid and fluid mechanics, materials science, CAD/CAM
- Propulsion systems, aerospace materials, Model-Based Systems Engineering (MBSE) for aerospace projects

2021-2023 Undergraduate engineering classes

ESEO Engineering School, France

2020-2021 Technical Degree in Mechanical Engineering

University of Angers, France