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🏠 Tours, France

📄 Driving licence (B)

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## LinkedIn

### QR code:



### Link:

[www.linkedin.com/in/bastien-vilair](https://www.linkedin.com/in/bastien-vilair)

## Skills

**Team work, Cooperative**

**Autonomy, Adaptability**

**Respectful, Attentive to others**

**Mechanical design, manufacturing methods**

**Research & development of solutions**

**Project management**

## Computer skills

### Microsoft office

Master multiple softwares of Microsoft Office suite

### Mechanical design (CAD)

Designed and analysed many systems on SolidWorks, TopSolid V7, 3DEXPERIENCE

### Simulations (CAE & FEM)

Used Abaqus, Ansys suite and Altair suite for simulations

### Manuf. methods (CAM)

Studied on manufacturing with Mastercam and Autodesk FeatureCAM

### IT (Prog., Database)

Studied programming with Matlab, Python, R and C++  
Studied databases using SQL and Access

## Interests

### Motor sports

F1, Racing simulation

### Sports

basketball, cycling, bodybuilding, tennis, swimming

## Languages

### French

Native speaker

### English

Intermediate/professional level

# Bastien Vilair

## 5TH-YEAR ENGINEERING STUDENT IN R&D/DESIGN/TEST INDUSTRIALIZATION

I'm looking for a 6-month internship starting in March 2025 and I'd like to work in research & development in fields related to mechanics.

## Academic projects

**Numerical and experimental characterisation of the lift and drag of a wing profile as a function of its angle of incidence.**

**Research and development project to design an optimised hydraulic turbine.**

**Mechanical design project on an overhead crane gearbox on Solidworks**

**Project to model a simplified aircraft using the finite element method on Matlab**

**Project to optimise the topology of a mechanical part using the finite element method on Abaqus**

## Education

### ● Master's degree in mechanics

Sept. 2024 - Aug. 2025 **Institut National des Sciences Appliquées (INSA)** Blois, France  
Attend lessons in mechanical structure, advanced materials, vibration analysis, fluid dynamics, thermomechanical simulations, crash, turbomachinery...

### ● Industrial engineering degree

Sept. 2022 - Aug. 2025 **Institut National des Sciences Appliquées (INSA)** Blois, France  
Attend lessons in engineering and industrial sciences, languages and communications...

### ● Bachelor degree in sciences

Sept. 2019 - Aug. 2022 **Ecole Nationale Supérieure des Arts et Métiers (ENSAM)** Angers, France  
Attended lessons in mechanics, energy, design, electronics, sciences, communication...

### ● Two-year vocational degree in mechanics and Production engineering

Sept. 2019 - Aug. 2021 **University of Angers** Angers, France  
Attended lessons in mechanics, production, design, system control, sciences, communication...

## Work experience

### ● Assistant engineer [Internship]

Apr. 2024 - Aug. 2024 **Nuclear power plant of Nogent-sur-Seine (EDF Group)** Nogent-sur-Seine, France

Objective: Draw up a preventive maintenance program of the plant's laboratory.

- Carried out an inventory of the plant's equipment and the associated operating and maintenance standards
- Proposed sustainable maintenance solutions for all equipment

### ● Project manager [Sandwich course]

Sept. 2021 - Aug. 2022 **M3M (SKF Group)** Les Trois-Moutiers, France

Objective: Analysing needs and improving the different processes or industrial workstations.

- Managed a project to study and redesign a workstation improving ergonomics, safety and productivity

**Obtained an industrial project manager certificate**

### ● Method technician [Internship]

Apr. 2021 - July 2021 **ERMETO (SENIOR AEROSPACE Group)** Fossé, France

Objective: Improving industrial workstations and industrializing some products.

- Updated and industrialized some processes and documents like manufacturing methods
- Relocated a workstation and optimized its production flows