#### **PERSONAL DETAILS**



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Montaigu-Vendée, France

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Portfolio: <u>alecbossard.github.io</u>

Driving license: Category B

#### **LANGUAGES**

English

French Spanish



#### **SKILLS**

#### Robotics and Automation:

- ROS
- mobile robotics and autonomous navigation
- robotic modeling (Denavit– Hartenberg, Jacobians)

#### Planning & Control:

- A\*, Dijkstra
- trajectory generation & smoothing

#### Optimization:

- gradient/Newton methods
- least squares

#### Robot Manipulators:

- 6-DOF arms
- workspace & singularities

### Programming:

- Python, C, C++, Arduino
- Pandas, NumPy, Matplotlib
- PyTorch, TensorFlow and Keras

#### Computer Vision:

• preprocessing & augmentation

#### Collaboration:

Teamwork

#### **INTERESTS**

Sports

Music

Travel & Exploration

# **ALEC BOSSARD**

#### ROBOTICS ENGINEERING STUDENT AT UPSSITECH

## **PROFILE**

Robotics & Autonomous Systems student (UPSSITECH), focusing on perception, state estimation, and motion planning for mobile robots.

Availability: Apr 15 - Aug 31, 2026.

# **EDUCATION**

**UPSSITECH - Paul Sabatier University, 2024 - 2027 Toulouse** *Graduation: Jun 2027* 

**Engineering School in Robotics** 

CUPGE UPSSITECH – Paul Sabatier University, Toulouse

2022 - 2024

**Preparatory Class** 

## **PROJECTS**

#### TLSE Racing Project - 2025-2026

- Built and trained perception models in PyTorch (cone/track detection) dataset curation, augmentation, evaluation
- Implemented image processing and control modules using ROS / Python / C++
- Collaborated within a multidisciplinary technical competition team

#### "Fil Rouge" Project - UPSSITECH (2024-2025)

- Programmed in C and Python on Linux/Unix for communication and control
- Implemented automatic and voice-control driving modes
- Managed project planning, technical documentation, and physical robot integration

# **PROFESSIONAL EXPERIENCE**

#### **Temporary Worker - SODEBO**

- Participated in food production processes
- Ensured compliance with hygiene and safety standards
- Worked effectively as part of an industrial team