



NICOLAS BARRIÈRE

Software & Robotics Engineer

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SUMMARY

MEng Student at **CentraleSupélec**, an elite French Engineering School , passionate about Robotics, AI and IT.
I am currently looking for a **6-month internship** as a **Software or Robotics Engineer**, beginning **August 2025**

TECH SKILLS

SoftWare

Languages: Python, C++, PHP, Dart, JS
Web Dev: React, Three.js, Tailwind, Stripe, Stripe Connect
Web Scraping: Selenium, BeautifulSoup
Framework: Node.js, Next.js, Laravel, Django, Flutter
AI & DataScience: PyTorch, Scikit-learn, NumPy, Matplotlib
Databases: SQL, Supabase
Tools: Git, Docker, Wordpress

HardWare

Modeling: SolidWorks, Fusion360, KiCAD, ComsolMultiphysics, Matlab, Simulink
Communication Protocols: I2C, UART
Embedded: Arduino, Raspberry Pi, ESP32
Prototyping: 3D Printing, CNC Machining

EDUCATION

CentraleSupélec 2023-2027

- Master of Engineering
- CentraleSupélec is a member of the ParisSaclay University (12-ranked in the Shanghai Ranking) and is an elite french school for general scientific education
 - GPA: 4.05/4.33
 - Relevant courses: Analysis, Partial Differential Equations, Probabilities, Statistics
 - CS+E : Special two-year program dedicated to startups and business creation.

Digital Tech Year 2025-2026

- Highly selective and specialized one-year IT program at the Paris Digital Lab
- Delivered 3 innovative prototypes within 6 months in a team-based Agile environment.

PERSONAL SKILLS

- Fast learner, quick to adapt in multidisciplinary projects
- Entrepreneurial mindset with hands-on approach
- Curious, open-minded, solution-oriented
- Comfortable working both independently and in teams

TECH EXPERIENCE & PROJECTS



Founder - Chessart - www.chessart.fr

2020 - Present

Business selling customizable magnetic chessboards with a modern design (€2k+ revenue, 50% net margin). Built an e-commerce website with live 3D customization to showcase and sell the product. Currently developing a high-end automated chessboard that allows users to play online using a physical set.
Skills: Product design, 3D modeling, PCB design, embedded systems, prototyping, manufacturing, cost optimization, sales.
Tech: C++, Flutter, Three.js, PHP, EasyEDA, ESP32

Agile Prototyper - Paris Digital Lab

2025 - Present

- 1st project: AI-Powered pipeline for road extraction from satellite imagery.**
Tech: Pytorch, Python, NumPy, Scikit-learn, Algorithm development, Shapely, QGIS
- 2nd project: ?**
Tech: Pytorch, Python, NumPy, Scikit-learn, Algorithm development, Shapely
- 3rd project: ?**
Tech: Pytorch, Python, NumPy, Scikit-learn, Algorithm development, Shapely

Student Tech Projects - CentraleSupélec & PSI*

2022 - 2025

Miniature Camera-Based Self-Driving Vehicles

Prototyped a fleet of miniature self-driving vehicules navigating a custom circuit
Tech: Embedded C++, Python, Arduino Romeo, Raspberry Pi 3 B+, TCP/IP

Web app for movie recommendations using IMDb API

Tech: React, Javascript, Python, Recommendation Algorithms

Self-following spherical robot

Prototyped a self-following spherical robot to help seniors transport groceries
Tech: SolidWorks, Matlab, Simulink, Arduino, C++

Personal Tech Projects

NearPrint3D Startup MVP

2021

Peer-to-peer 3D printing platform: users could request parts and pay local makers to print them. **Tech**: Laravel (PHP), Eloquent ORM, and Laravel Breeze for authentication

WashBall - Innovez prize

2020

Invention, design, and fabrication of a fully automated football-cleaning machine
Winner of the 1,000€ "Innovez" innovation prize — Sciences & Vie Junior competition
Tech: SolidWorks, Arduino, 3D Printing, C++



Duffel Intern - London

August 2019

Three-week internship, during which I developed a Python tool to analyze competitor flight prices and provide valuable insights to the company. I had an amazing time working in a small team of international talents to bring innovation to the travel industry.

HOBBIES

Piano – 11 years – Favorite piece: Heroic Polonaise by Chopin
Freestyle football – Personal juggling record: 3,200
Business & startups enthusiast. Regularly read books and watch content on entrepreneurship – a strong source of motivation and inspiration.

LANGUAGES

French – Native
English – C1
Spanish – B1