

# Abdelmalek Belghomari

Master's Student in Computer Science and Artificial Intelligence Engineering

📍 France    ✉ belghomariabdelmalek@gmail.com    ☎ +33 777 322 951    🔗 abdelmalekbelghomari.github.io  
in Abdelmalek Belghomari    🌐 abdelmalekbelghomari

## Experience

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**Shibaura Institute Of Technology — [Neural Information Systems Laboratory](#)** Tokyo, Japan  
*Research Intern — Supervisor: ✉ PhD Ryosuke Hosaka* May 2024 – Aug 2024

- Developed a **Liquid State Machine**, achieving accurate predictions for chaotic time-series data.
- Implemented **Machine Learning**, **Deep Learning**, and **Reservoir Computing** models with **Spiking Neural Networks**, advancing neuromorphic computing research
- Demonstrated a **rapid learning curve** and adaptability to new fields, tools, and programming languages

## Projects

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**Entrepreneurship Project — [Orange Innovation Academy](#)** 2024 - Now

- Pitched my project idea, set up a business plan and developing innovative services
- Currently developing a web-app platform for my project idea and **managing a group of 6 people**
- Tools Used : React.js, TailwindCSS, Firebase

**Chatbot AI — [LCL Hackathon & Google Cloud - Ranked: 3<sup>rd</sup>](#)** Sept 2024

- **Fine-tuned** Gemini-AI using GCP and Langchain
- Tools Used: Google Cloud Platform, Python, HTML/CSS/JS, React.js, Docker, Firebase, Langchain

**Person and Text Recognition from Keystroke Sounds on a Laptop Keyboard** 2023 - 2024  
**[ENSICAEN & GREYC](#)**

- Worked on **CNNs** and **Transformers** (CoAtNet) for sound recognition
- Achieved signal processing to detect keystrokes from a laptop microphone capturing the ambient noise
- Tools Used: Python, MATLAB, TensorFlow, MFCC, Gitlab/Github

**ENSICAEN Goose Game — [Academic project](#)** 2023

- Tools Used: Java, JavaFX, Scene Builder

## Education

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**National Engineering School of Caen ([ENSICAEN](#)) — GPA: 4.0/4.0 - 14,88/20** Caen, France  
*MEng in Computer Science majoring in Artificial Intelligence, Image and Sound* Sept 2021 – Aug 2025

- **Coursework:** **Machine Learning**(A.Lechervy), **Deep Learning**(L.Simon), **Image Processing**(Y.Queau), **Software Architecture**(R.Clouard), **Software Development**, **Pattern Recognition**(L.Brun), **3D Image Synthesis**(L.Simon), **Computer Architecture**, **Data Mining**(C.Rosenberger)

**[Théophile Gautier Preparatory Classes](#) — High Honours** Tarbes, France  
*Preparatory School for top-ranking French establishments* Sept 2018 – June 2021

- **Coursework:** **Algebra**, **Analysis**, **Computer Science**

## Skills

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**Languages:** French (native), **English (Fluent)**, Spanish (Intermediate), Japanese (Beginner)

**Programming :** C, C++, Python, Java, React.js, PHP, SQL, Kotlin, Swift, MATLAB

**Technologies:** TensorFlow, PyTorch, Scikit-Learn, Pandas, Google Cloud, Qt, JavaFX, Jakarta EE

**Interests:** Swimming (Top 160 world at my best), Entrepreneurship, Working-out, Fashion, Cuisine