# **Baptiste PRAS**

# Bachelor student in Computer Science

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I am a Bachelor's student at University Paris-Saclay, passionate about Artificial Intelligence and Data Science. I aim to further my studies in these fields to deepen my knowledge, gain hands-on experience and ultimately pursue a PhD to contribute to research and innovation.

## **EDUCATION**

### **Computer Science Magister**

Paris, France

University Paris-Saclay (GPA: 13.8/20)

2024-2025

- Selective and prestigious program
- Followed a reinforced curriculum with advanced computer science courses and a focus on artificial intelligence and distributed algorithms
- University ranked 1<sup>st</sup> worldwide in mathematics (Shanghai ranking), and 12<sup>th</sup> overall, highlighting its academic excellence

## **Dual Bachelor Degree in Computer Science and Mathematics**

Paris, France

University Paris-Saclay (GPA: 14.67/20 | 14.47/20)

2022-2024

 Integrated rigorous coursework in mathematics and computer science, providing a strong foundation in algebra, probability, data structures, and algorithms, and developed advanced skills in problem-solving and computational thinking

#### **High School Baccalaureate**

Rumilly, France

Démotz de la Salle High School (GPA: 16.88/20)

2020-2022

- Specialization in mathematics and computer science, graduated with highest honors
- Participated in several Erasmus programs (Denmark, Croatia, Italy, Hungary)

#### **English School**

New-York, USA

**EF New-York** 

2019-2020

- Completed an intensive English immersion program, achieving C2 proficiency
- Developed independence, autonomy, and cultural openness by living alone in a foreign country at the age of 16

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## **PROFESSIONAL EXPERIENCE**

## **Study and Research Project** (internship)

Paris, France

LISN

January – April 2025

- Studied the impact of class imbalance in train and test sets on classification tasks performance, aiming to identify an optimal imbalance ratio different from 0.5
- Conducted experiments in Python, using Scikit-Learn, NumPy, and MatPlotLib
- Analyzed various class imbalance scenarios using a hand-coded spherical Teacher-Student perceptron, introducing different noise levels, using different loss functions and learning methods, such as gradient-based training and Langevin dynamics
- Generated and processed different types of data, primarily Gaussian distributions

**Generative AI Trainer** Remote

2025 Outlier Designed and refined prompts to enhance the performance of generative AI models

- Reviewed and corrected Al-generated outputs to ensure accuracy and quality
- · Contributed to the continuous improvement of deep learning models through feedback and prompt optimization

### **Stock Associate** (summer job)

Seyssel, France

Carrefour Market

2021-2024

 Ensured optimal shelf stocking, provided customer assistance, and maintained high standards of store organization

## **ACADEMIC PROJECTS**

- Spherical Teacher-Student Perceptron: Implemented in Python a spherical Teacher-Student perceptron, entirely hand-coded using only NumPy, to analyze various class imbalance scenarios in train and test sets
- Image Classification: Developed a machine learning model to recognize specific traffic signs using supervised learning algorithms. Extracted data from pictures, pre-processed it and trained several models on it. Reached a performance of over 95%
- Java-like Interpreter: Made an interpreter based on Java, supporting various instructions, basic arithmetic, classes and methods. Implemented Java-like type checking. Coded in OCaml, Ocamllex and menhir
- Various 2D Games: Air Hockey in Python; Labyrinth creation and solving in Ocaml; Colt Express in Java; Termite Battle simulation in C++; Database library in C++

## **SKILLS AND INTERESTS**

#### **Hard Skills**

- Python: Advanced, proficient in NumPy, MatPlotLib, Pandas, Seaborn, Scikit-Learn
- C++/C: Advanced

- HTML, CSS, Processing: Familiar with
- Ocaml, Java, SQL: Intermediate
- Office Suite: Word, PowerPoint, Excel

#### Languages

- French: Native language
- Russian: Basic knowledge (A1-A2)
- English: C2 proficiency TOEFL: 108/120
- German: Basic knowledge (A1-A2)

#### Soft Skills

- Teamwork, collaboration and leadership: Developed through 15 years of basketball, including competition, coaching and refereeing
- Work ethic: Demonstrated punctuality and reliability working on previous jobs
- Flexibility and adaptability: Quick learner, easily adapting to new tools and priorities
- Autonomy and initiative: Experience living abroad, as well as professional experience in selflearning and complete independence

#### **Interests**

- Basketball: Practiced 15 years. Coached several teams and held a referee license
- Algorithmic: 5 years of practice in competitive programming. Finalist of the Prologin contest three times (38/106, 18/95, 23/112)