



# JULIEN BAUDRU

PhD candidate - Computer sciences

## PROGRAMMING

Python	Expert
C++ / JavaScript	Advanced
HTML / CSS	Advanced
C / Java	Advanced
Lua / R	Intermediate
x86 assembly	Beginner
SQL / C#	Beginner
PHP / Swift	Novice

## GITHUB



## PROFILE

I am a free spirit that has learned to use his critical thinking for both interrogating statements and solving problems. More practical than theoretical-based, I enjoy evolving working on multi-disciplinary projects that make intervene people with different educational backgrounds. Also, conceptualization alone is not enough to satisfy me, I need to have a concrete result in my hands.

Despite my attraction to applied mathematics, especially computer science, I grew up in an environment where music and visual arts were prominent, so they became my passions. I aspire to one day be able to combine the two worlds, the rational and the artistic. And I am convinced that artificial intelligence is the perfect approach to bring these two worlds together.

I have a natural curiosity, I consider that nothing is ever taken for granted and that we only know a small part of all the applications of computer science in the real world. This is why I have developed a particular interest in research, to understand and explore.

## EDUCATION

PhD in Engineering sciences and technology

Université Libre de Bruxelles (ULB)

2023 - Today

Thesis entitled: *"Fair Travel Car-pooling Problem in the multimodal road network"*.

List of publications (submitted and accepted) in journals or conferences:

- **NetSciX 2022 - Porto** - *Understanding the universe of jazz by means of its musicians networks* - **[Accepted]**
- **NetSci 2024 - Quebec** - *Lyric Networks Unveiled: A Novel Approach to Analyzing The Beatles' Songs Using Text Embeddings and Network Analysis* - **[Accepted]**
- **NetSci 2024 - Quebec** - *Heuristic Optimal Meeting Point Algorithm for Car-Sharing in Large Multi-modal Road Networks.* - **[Accepted]**
- **VEHITS 2024 - Angers** - *Heuristic Optimal Meeting Point Algorithm for Car-Sharing in Large Multimodal Road Networks.* - **[Submitted]**

List of courses for which I was an assistant:

- **INFO-H410** - Techniques of artificial intelligence
- **INFO-S2001** - Informatique
- **TRAN-H201** - Projet multidisciplinaire II et gestion de projet

## SOFTWARE

Ableton	Advanced
Premiere Pro	Advanced
Photoshop	Advanced
Office suite	Advanced
Blender	Novice

## CONTACT

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- 📍 37, rue du Petit Briffoeil  
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- 📞 +32 470 59 83 91
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## SOFTSKILLS

Problem solving	★★★★★
Creativity	★★★★★
Critical mind	★★★★★
Organization	★★★★☆
Communication	★★★★☆
Leadership	★★★★☆
Teamwork	★★★★☆

## INTERESTS

- 🎨 Artwork design & Painting
- 🎵 Music listening & making
- 📖 Reading & Writing
- ✈️ Nature & Travelling
- 🚗 Cars design

### Master in Computer Sciences Université Libre de Bruxelles (ULB)

2021 - 2023

Master's thesis entitled: "*Understanding the universe of jazz by means of its musicians networks*". You can read it by visiting this [link](#).

with a particular interest in the following courses

- Learning dynamics
- Computational geometry
- Graphs and networks
- Techniques of artificial intelligence
- Swarm Intelligence

### Bachelor in Computer Sciences Université Libre de Bruxelles (ULB)

2017 - 2021

with a special interest in the following courses

- Programming languages 1 & 2
- Software Engineering & Project Management
- Systems administration

## INTERNSHIP

### During the Master's program FARI - AI for the Common Good Institute

2022

Development of a solution to detect illegal sales of animals online in Belgium using machine learning algorithms. The project was initiated by the Brussels Region and Cabinet Clerfayt. Then, in a second step, development of a public demonstration to raise awareness about animal welfare and AI.

## VOLUNTEER WORK

### Cook & driver Saint-Piat (22nd scout unit of the Escout)

2019 & 2020

I cooked for a 5 to 7 year old scout troop in Hainaut in 2019. Then, in 2020, I accompanied a scout troop from 16 to 18 years old in Spain to cook and carry the bags.

## WORK EXPERIENCES

### Co-founder of a not-for-profit organisation NOC - Nice O'Clock ASBL

2020 - Now

I set up a non-profitable legal structure with a group of friends in the audio-visual field aiming to promote by any means the development of artists of all kinds.

### **Student job - Programming and System administration**

**FARI - AI for the Common Good Institute**

2023

During this period I had to help my colleagues to set up the different experiments related to AI in the FARI experience center. We also put in place different automation solutions such as powering on, starting and shutting down all the experiments.

### **Student job - Research & Development**

**IRIDIA (ULB)**

2023

Development of a pilot project for P&G involving the retrieval of content from numerous scientific articles on subjects requested by the customer. First, a search engine was built to retrieve the closest sentence to the user's query from these articles. Then finally, replace this search engine with a chat bot using an LLM model (OpenAI API, FAISS, BM25).

### **Student job - Surveillance, cleaning and ticket sales**

**Le Panoramique - Floreal Group**

2019, 2020 & 2021

During these three summers, I alternately supervised the different attractions of the park, sold the entrance tickets and washed up in the kitchen.

### **Student job - Animation of a musical summer camp**

**Mazure 14 - Ville de Tournai**

2019

During this week of practicals, I was invited to initiate teenagers from a youth center to the creation of computer assisted music (via Ableton).

### **Student job - Manual work**

**THERSA**

2017 & 2018

During the summer of 2017, I followed a team of workers on a construction site to help them with the installation of different components related to heating and sanitation. Then in 2018, I helped the warehouse storekeeper with inventory, storage and sorting of parts.