



Julien Kühn

Date of birth: 21/06/2000 | **Nationality:** Luxembourgish | **Phone number:**
(+352) 691318086 (Home) | **Email address:** kuhn.julien@outlook.com |
Address: 13, rue M. Thomas Clement, 4429, Belvaux, Luxembourg (Home)

WORK EXPERIENCE

01/03/2024 – 14/12/2024 Belval, Luxembourg

AI-POWERED COGNITIVE PATTERN ANALYSIS FOR PERSONALIZED LEARNING - MACHINE LEARNING UNIVERSITY OF LUXEMBOURG

Designed and implemented AI-driven educational tools, employing innovative approaches to data handling and evaluation.

15/10/2023 – 15/12/2023 Belval, Luxembourg

MACHINE LEARNING ENGINEERING - SENTIMENT ANALYSIS UNIVERSITY OF LUXEMBOURG

Developed and trained ML models to analyze textual data with human-in-the-loop strategies, improving sentiment detection in low-resource languages.

15/07/2022 – 15/07/2023 Luxembourg, Luxembourg

FOSS ASSISTANT AT TECHNOLOGY TRANSFER OFFICE SNT, INTERDISCIPLINARY CENTRE FOR SECURITY, RELIABILITY AND TRUST

PROJECTS

Virtual and Augmented Reality

Developed a virtual space in Unity featuring 40+ distinct interactive objects within a themed environment. The project implemented advanced user interaction techniques, including keyboard/controller input, trigger events, collision events, and raycasting. Integrated UI elements and sound effects to enhance user experience, with optional VR platform support for immersive exploration.

03/2024 – 14/12/2024

AI-Powered Cognitive Pattern Analysis for Personalized Learning

This project combines graph machine learning with large language models to analyze students' exam responses. Its objective is to identify cognitive patterns indicative of how students comprehend and process information. The overarching aim is to utilize these insights for personalized educational strategies, enhancing learning outcomes by adapting to the distinct cognitive profiles of each student.

Link <https://www.uni.lu/fstm-en/research-projects/ai4edu/activities/>

Medway League Series

I have been helping to organize the **Meday League Series**, a yearly League of Legends tournament featuring weekly games on Wednesdays and weekend playoffs. The games are cast live on Twitch, attracting an audience of around 20 viewers. What started as a small tournament among friends from the UK has grown into a somewhat larger event, bringing together players from across Europe. My role includes coordinating schedules, managing teams, and contributing to the event's steady growth and success over the years as well as being a player in a team.

Link <https://www.twitch.tv/medwaygaming/videos>

Computer Vision and Image Analysis

Developed a spacecraft recognition system, leveraging knowledge of the space environment for Space Situational Awareness. The project included detecting, localizing, and classifying space objects across 11 target categories using a dataset of 110,000 images. It also involved 6DoF spacecraft pose estimation with synthetic trajectories, showcasing expertise in vision-based navigation for orbital robotics and proximity operations.

Connected and Autonomous Vehicles

Developed a self-driving car system using the CARLA Simulator, implementing capabilities for environment perception, route calculation, and path-following. The project utilized a cloud-based CARLA server with Python programming, enabling seamless client-server communication on various operating systems.

PUBLICATIONS

2024
Mapping Sentiments: A Journey into Low-Resource Luxembourgish Analysis

This study uses advanced ML techniques and human-in-the-loop strategies to enhance sentiment analysis for Luxembourgish, effectively detecting subtle sentiments in user-generated content.

ECAI 2024 Workshop LUHME
Nina Hosseini-Kivanani, Julien Kühn, Christoph Schommer

DIGITAL SKILLS

Programming Languages

Python | C++ | SQL | JavaScript | Java

Frameworks & Tools

Pytorch | Tensorflow | Unity | Git

Specialized Skills

Game AI | Computer Vision | Machine Learning | Dynamic Pathfinding | Reinforcement Learning | Natural language Processing | Data Analysis

EDUCATION AND TRAINING

14/09/2017 – 14/07/2018
DIGITAL LEADER DIPLOMA Luxembourg Tech School

Website <https://www.techschool.lu/> | Field of study Game Development, Big Data, Financial Technology

14/09/2012 – 14/07/2020 Esch-sur-Alzette, Luxembourg
GENERAL CERTIFICATE OF SECONDARY EDUCATION - ADVANCED LEVEL, CLASSICAL SECONDARY EDUCATION Lycée de Garçons Esch

Address 71, rue du Fossé, 4123, Esch-sur-Alzette, Luxembourg | Website <https://www.lge.lu/> |

Field of study Mathematics-Informatics | Final grade 41 - with honors

14/09/2020 – 13/07/2023 Esch-sur-Alzette, Luxembourg
BACHELOR IN COMPUTER SCIENCE University of Luxembourg

Address 2, avenue de l'Université , L-4365, Esch-sur-Alzette, Luxembourg | Website <https://www.wen.uni.lu/> |

Field of study Computer Science | Final grade 16.1 - with highest honors

18/01/2022 – 19/05/2022 Oxford, United States
BACHELOR IN COMPUTER SCIENCE - EXCHANGE SEMESTER Miami University

Address 501 E High St, 45056, Oxford, United States | Website <https://miamioh.edu/> |

Field of study Computer Science, Web Application Programming, Ethics, Object Oriented Programming | Final grade 3.94 GPA

15/09/2023 – CURRENT
MASTER IN COMPUTER SCIENCE University of Luxembourg

Current Grade: 16.2

Address 2, avenue de l'Université, L-4365 | Website <https://www.wen.uni.lu/> | Field of study Information and Computer Sciences

● **HONOURS AND AWARDS**

Outstanding Performance in Distributed Systems

Achieved a grade of 19.2/20, demonstrating excellence in fault tolerance, distributed algorithms, and scalable system design.

21/06/2022

Named to Dean's List - Top 20% of Students – Miami University

Link <https://meritpages.com/julienkuhn>

● **LANGUAGE SKILLS**

Mother tongue(s): **LUXEMBOURGISH | FRENCH**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1
GERMAN	C1	C1	C1	C1	C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● **HOBBIES AND INTERESTS**

Basketball

I have been playing basketball as the captain of my team since 2018. In this leadership role, I have honed my teamwork, communication, and strategic thinking skills while fostering a collaborative and motivated environment. Through consistent effort and dedication, I have led my team in numerous tournaments and contributed to building a strong sense of camaraderie and success on and off the court.