

PIERRE PAGACZ

Project manager & developer

PROFILE

Software developer with solid experience in research and development, I have contributed to projects in the fields of digital technology, healthcare, and legal tech, working within multidisciplinary teams to design and build complex technological solutions. In parallel, as a freelance developer, I work on projects that combine technical expertise with social impact, creating tools that are both high-performing and socially responsible.

EXPERIENCE

Entrepreneurial & Side Projects

2024 - Present

I design and develop digital tools that combine AI, data processing, and user-centered design to address real-world needs. This includes a funding search platform that helps non-profit organizations identify relevant opportunities through web data collection, NLP, and AI-assisted search, as well as an AI-based transcription service integrating queue management, asynchronous processing, and real-time updates. A version of the transcription tool is already deployed and available on the internal network of the institution I work for (HELMo).

Digital Project Lead – HELMo Liège

2023 - Present

For the past year, I have been the main lead of the Hackesas project, a space dedicated to the critical and practical exploration of digital technology, primarily for students at the School of Social Work in Liège (ESAS, HELMo). Hackesas serves as a hub for socialization and innovation, encouraging students to explore and identify technological solutions relevant to their future professions. As project leader, I also designed and implemented various educational frameworks, including training modules that support critical learning of digital tools.

Researcher & Developer – HELMo Liège

2021 – 2023

For two and a half years, I worked as lead developer and researcher on a research and development project in the field of legal tech. The project aimed to design a prototype of a web application to help jurists identify the best legal arguments for a given case. This experience allowed me to work at the intersection of software development, natural language processing, and law, integrating these disciplines to build a tool that was both efficient and practically useful. It also strengthened my R&D project management skills and provided solid experience in web application development.

Researcher – CRIDS, University of Namur

2016 – 2019

As a researcher in the humanities and technology ethics, I worked within multidisciplinary teams focused on developing digital health solutions. My role involved analyzing the social impact of digital health technologies from an ethical perspective, in close coordination with the CRIDS legal unit. I conducted both quantitative and qualitative analyses to understand the needs of target audiences, while serving as a key intermediary between software engineers and end-users. This experience also allowed me to contribute to the drafting of functional specifications and the design of user interfaces, integrating digital literacy into the development process.

Adjunct Lecturer – HEPL of Liège

2016 – 2019

I designed and taught a course on social and cultural diversity, as well as gender issues, for first-year undergraduate students in physical education and sports coaching. This rewarding experience allowed me not only to share essential knowledge for students' personal and professional development, but also to deepen my own understanding of key concepts in the social sciences. Through this teaching, I fostered an inclusive and reflective learning environment, encouraging students to explore diverse perspectives.

SKILLS

Natural Language Processing (NLP)

Classification, entity extraction, embeddings, RAG, fine-tuning

Information Retrieval & Crawling

Web scraping (Puppeteer, BeautifulSoup), data cleaning, data structuring

AI Automation

ETL pipelines, workflow automation with LLMs, retrieval-augmented generation

Machine Learning

Logistic regression, SVM, random forest, transformer models (BERT, mBERT, XLM-R)

Speech-to-Text

Whisper (implementation & optimization), audio processing

Knowledge Engineering

Ontologies, taxonomies, semantic modeling

AI Development & Automation

AI integration, chatbots, document assistants, automated FAQ systems, regex filters, key paragraph extraction, relevance scoring, RPA for web & data tasks

Web & Backend Development

Angular, React, Next.js, TailwindCSS, NestJS, Node.js, Express PostgreSQL (pg, TypeORM), Pinecone, REST, GraphQL, WebSockets, Docker, Fly.io, basic CI/CD

UX / UI & Creative

Prototyping, wireframing, user testing, Figma, modular design systems, design guidelines, animation & interactivity (GSAP, Three.js, p5.js)

Project Management & Cross-cutting Skills

Project management, leading interdisciplinary teams
Scientific communication & knowledge transfer
Ethics & social impact of technology

Languages

French, English, Italian

EXPERIENCE

Trainer – Institute for Continuing Education (IFC), Brussels & Namur

2016 – 2018

I had the opportunity to design and deliver a pedagogical framework for secondary school teachers, focusing on the inclusion of newly arrived students, migrants, and refugees. This highly rewarding experience deepened my understanding of the challenges of educational inclusion and allowed me to actively contribute to teacher training by providing both practical and theoretical tools to better support these students in their learning journeys.

Board Member – ASBL La Baraka

2017 – Present

For several years, I have been a member of the Board of Directors of La Baraka, an organization dedicated to supporting young people from underprivileged neighborhoods. This commitment is particularly meaningful to me, as La Baraka plays a crucial role in offering these youths opportunities for personal development and social integration. Through my role on the board, I have contributed to initiatives that strengthened the association's impact, while collaborating with dedicated professionals who share a vision of a more just and inclusive society. This experience has also given me deeper insight into the social challenges faced by these communities, reinforcing my long-term commitment to social causes.

EDUCATION

Fullstack Web Application Developer – Proforma, Liège

I had the opportunity to complete an intensive training program in web application development, which provided me with a solid foundation in this field. This “fullstack” training was designed to produce versatile developers, covering in depth all aspects of web development: frontend (what appears on screen), backend (server-side processes), database management, and design. At the end of the program, I not only acquired a comprehensive set of technical skills, but also refined and enriched them through later professional experiences in development, strengthening my ability to build robust and efficient web applications.

MA in Sociology (Research track) – University of Liège

My years of study in sociology deeply shaped the way I see the world, equipping me with analytical tools and an understanding of social phenomena that have been essential throughout my career. These frameworks for interpreting the social world have allowed me to approach professional challenges with a nuanced and informed perspective, enriching every project I have contributed to.

MA in Sociology (Teaching track) – University of Liège

I earned the AESS qualification to become a teacher. The skills I acquired in designing and delivering pedagogical frameworks have proven extremely valuable throughout my career. In particular, they helped me develop the ability to communicate complex topics clearly and effectively — a competence I have applied in various professional contexts.