

Curriculum Vitae

Personal Information

- **Name:** Pascal Musabyimana
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- **LinkedIn:** <https://www.linkedin.com/in/pascal-musabyimana-573b66178/>
- **GitHub:** <https://github.com/pascal-maker>
- **Date of Birth:** 20 August 2000
- **Nationality:** Belgian

Summary

Ambitious student and part-time freelancer specializing in full stack development and computer vision. Currently studying at Howest University of Applied Sciences with diverse work experience in IT consultancy, customer service, and logistics support. Highly interested in machine learning, deep learning, and innovative technological solutions.

Work Experience Timeline

2020

- **Course:** Storytelling & Sales – Tiemi

2021

- **Student Job – Proximus Fiber Team – Proximus (2021)**
 - Informed customers about Proximus services and the installation of fiber optics in their area.
- **Founder – Stealth – Ghent and surroundings (01/2021 – 2023)**
 - Created a Tinder-like swipe app for students.
 - Responsible for user experience, beta testing, GDPR compliance, regular updates, MVP development, and website design.
- **IT Consultant (Student Job) – Beego (2021 – 2024)**
 - Solved IT issues for people in digital poverty.
 - Achieved an average customer satisfaction score of 4.5/5 across multiple assignments.
- **Logistics Support – Cevi (2021 – 2022)**
 - Managed IT infrastructure.
 - Prepared laptops and hardware for office deployment.
- **Student Job – Fietsambassade – Fietsambassade VZW (2021 – Present)**
 - Managed student bike registrations during the academic year openings in Ghent.

2023

- **Customer Service Assistant – BNP Paribas Fortis – Kouter Ghent (2023 – 2024)**
 - Assisted customers with questions about transfers, cancellations, and app-based digitalization.
- **Customer Service Assistant – ING – Sint-Martens-Latem (2023 – 2024)**
 - Supported customers with inquiries regarding transfers, cancellations, and digital banking services.

2024

- **Student Job – Imec – Imec Wintercircus, Nerdland (2024)**
 - Explained the use of VR headsets during the festival.
 - Collected data and conducted surveys.

2025

- **Computer Vision Software Engineer (Contract) – EasyPost Belgium – Zwijnaarde**

(06/2025)

- Developed a proof-of-concept computer vision solution for anomaly detection.
- Due to an NDA, further technical details cannot be shared.

Education

- **Bachelor of Science in Creative Technology & AI – Howest University of Applied Sciences (2024 – 2027)**

Skills

- **Programming & Development:** Python, JavaScript, HTML, CSS, React.js, Next.js, Git, GitHub, C#, Swift
- **Tools & Platforms:** Google Firebase, Cursor, HuggingFace, Google Cloud Platform, Mysql, Kaggle, Bitbucket, LabelStudio, Microsoft Office (Word, Excel, PowerPoint, Gradio 4.19.2, ai-gradio, AutoGen, Smolagents, Swarm, PydanticAI, Qwen-VLM, SAM-2, CheXagent, Google Gemini API, Streamlit, REST APIs, JSON, dotenv
- **Design & Analysis:** UX design, Stable Diffusion, user research
- **Additional Interests:** App development, computer vision, machine learning, deep learning

Projects

- **Boxing Video Analysis with YOLOv8 and Ultralytics**
Developed a pipeline for object detection and pose estimation to analyze boxing matches, including a custom foul-detection feature.
- **Luminus AI Energy Assistant**
Developed a multi-agent AI system using **Langflow**, **Agentarium**, and **Streamlit** to assist energy customers with billing, consumption insights, and energy-saving advice. Integrated with **DataStax Astra API** for flow orchestration and **Python (requests, dotenv)** for backend automation.
- **Medical Imaging & Energy Assistant Repository**
Built a multi-agent AI system integrating **medical imaging (Qwen-VLM, SAM-2, CheXagent)** and **energy advisory tools (Gemini AI, AutoGen, Smolagents, PydanticAI, Swarm)**. Demonstrated multimodal reasoning, real-time image segmentation, structured report generation, and AI-powered customer assistance with interactive deployment through **Gradio** and **ai-gradio**.
- **Brain Tumor Detection**
Integrated SAM2 into a Colab notebook for real-time video segmentation as a proxy for medical imaging.
- **Object Detection on Soccer Video using YOLOv8**
Implemented an object detection pipeline using datasets from Roboflow and ClearML for experiment tracking.
- **Real-Time Person and Vehicle Tracking in Ghent**
Combined object detection and pose estimation supported by Kalman and particle filters for tracking people and vehicles.
- **Region Counting Using YOLOv8 (Inference on Video) Applied to Ghent**
Built an interactive system for real-time object detection and counting within specific regions with dynamic adjustment.

Interests

Calisthenics, reading, programming, macroeconomics, science and technology, machine

learning, deep learning, web and app development, medical AI, startups, data science.

References

Available upon request.