

PROFESSIONAL EXPERIENCE

Imec – Internship & Thesis

Leuven, Belgium

R&D Compute System Architecture group

Mar 2025 – Current

- First in the community to engineer a comprehensive installation pipeline for the Autoware Core & Universe 47 software stack on the embedded platform Nvidia Jetson Orin AGX, an ARM architecture with NVIDIA Ampère GPU
- Optimised CPU and GPU chiplet architectures through roofline modelling supported by architecture agnostic metrics
- Build a first-of-its-kind comprehensive profiling database for the autoware software stack for community development

Cardio Flow Design

Tokyo, Japan

R&D Software engineering intern

Oct 2023 – Aug 2024

- Developed a C# cardiovascular segmentation algorithm, applying statistical analysis and regression techniques, enabling precise identification of anatomical structures in MRI data with 91%(IOU) accuracy
- Integrated quadratic spline interpolation, enhancing the smoothness of the cardiovascular boundaries, reducing edge artefacts by 22%(ROI), leading to more accurate 4D reconstructions
- Spearheaded parallel processing implementation of SOR algorithm for 4D MRI, accelerating cardiovascular image analysis by 15%(latency), improving processing efficiency

Manipal University of Jaipur

Jaipur, India

Academic research intern

Aug 2023 – Sep 2023

- Implemented YOLOv3, achieving a mean average precision score of 0.85 on benchmark datasets, demonstrating superior performance in real-time Object Detection and Tracking
- Conducted 75+ hours of research, which involved testing, debugging, and automating the model validation pipeline, reducing manual testing time by 8 hours weekly and enabling heuristic hyperparameter search

Catholic University of Leuven

Leuven, Belgium

Research intern at STADIUS at the ESAT department

Oct 2022 – Jul 2023

- Constructed a linear auditory attention decoding (AAD) model for stimulus reconstruction from EEG data alongside semi-supervised learning techniques for absolute attention decoding
- Engineered a continuous learning model with sliding window attention for auditory decoding, achieving personalisation of a pre-trained base model, improving the accuracy by 15%

Twipe digital publishing

Summer internship followed by junior software engineer contract – automated data analytics

Jul 2022 – Jun 2023

EDUCATION

Master of Science in engineering: computer science – Magna Cum Laude

Leuven, Belgium

University of Leuven (KUL)

Sep 2024 – Jun 2026

- Courses: Machine learning; Data Mining; Big Data Analytics Programming; Information Retrieval & Search Engines; Algorithms & Data Structures; Genetic Algorithms; Software Architecture

LEADERSHIP

Google developer group (GDG)

Leuven, Belgium

Corporate relations lead

Sep 2025 - Current

- Supervised a team of five, instilling advanced proficiencies in partner relationship development, facilitating the acquisition of key resources, and strengthening industry partnerships, enabling the organisation of GDG events

Hydro Team co-founder – Hydrogen-fueled LMP

Leuven, Belgium

Electronics & software lead

Jul 2024 – Aug 2025

- Interviewed, selected and mentored 22 high-achieving engineering students using agile methodologies to pioneer the use of automotive ethernet in racing applications, leveraging Power over Ethernet (PoE) throughout the wiring harness

Model United Nations Society Belgium (MSB)

Leuven, Belgium

Active member

Sep 2022 – Jun 2023

Skills & certificates

Skills: Python, C#, Rust, SQL, Haskell Git, AWS, Docker, Linux, RAG, Search Engines, Databases, (Genetic) Algorithm design, AI, ML, Deep Learning, Numpy, Pandas, Numerical Algebra Mathematics & Modeling, Probability Theory & Statistics, Data Science

Certificates: Alumni Engineering Award, TOEFL 116/120, Awards @OxiMUN, LiMUN & Harvard World MUN