# Kiran De Roy

Betekom • kiran@litrik.com • +32 487 58 92 98 • In LinkedIn

#### **Education**

KU Leuven: Group T Sept 2024, June 2025

MSc in Electronics-ICT: Software Systems

• Coursework: C++, Machine Learning, Cybersecurity, Distributed Systems

**KU Leuven: Group T**BSc in Electronics-ICT: Smart Electronics and Software

Sept 2020, Feb 2025

• Coursework: Operating Systems, Object-Oriented Programming, Web Development

KAMSA Aarschot Sept 2014, June 2020

Science and Mathematics

Research

Master's Thesis – Real-Time Pelvic Rotation Detection Using Machine Learning Sept 2024, June 2025

Developed machine learning models for real-time pelvic rotation detection to address lower back pain, achieving 95% weighted F1-score using MS-TCN++ temporal model on IMU sensor data.

Technologies: Python, Scikit-learn, Pandas, NumPy, Tensorflow, PyTorch, CUDA

**Projects** 

### **Automatic Chessboard with Lichess Integration**

Source Code

- · Built an automatic chessboard powered by ESP32-S3 using CoreXY mechanism and electromagnets
- Integrated with Lichess API via React web app
- Tools: ESP-IDF (C), React, Stepper Motor Drivers, CoreXY Kinematics
- Awarded Best Student Project 2024

## **Student Freelancing SaaS Application: UniGigs**

Source Code

- SaaS web app for students to offer and find freelance gigs
- Authentication, file storage via Firebase, payments via Stripe
- Tools: React, TypeScript, Firebase
- Awarded Most Technically Advanced SaaS Application 2025

## **Distributed Food Ordering System**

Source Code

- Microservices-based food ordering platform with 2PC transactions
- Designed REST APIs, monitoring services, deployed to Azure
- Tools: Java, Spring Boot, REST APIs, Maven, Azure, GitHub Actions

Check out my website for videos, screenshots and a comprehensive list of other completed projects.

Skills

Languages: Java, C++, C, PHP, SQL, Python

Technologies: Symfony, Git, React, Firebase, QTCreator, Tensorflow, Ubuntu

Dutch (native), English (fluent)

## Other Experience

#### Student Job, Delhaize

July 2019, July 2021

- · Operated the cash register
- Restocked shelves