Kiran De Roy

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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 Sept 2020, Feb 2025

BSc in Electronics-ICT: Smart Electronics and Software

• 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

Skills

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

Tools/Frameworks: Symfony, Git, React, Firebase, QTCreator, Intellij, Figma, Ubuntu

Languages: Dutch (native), English (fluent)

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.

Other Experience

Student Job, Delhaize

July 2019, July 2021

- Operated the cash register
- Restocked shelves