Gideon Vermeulen

Software Developer & AI Enthusiast

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About Me

Third-year Bachelor of Computing student passionate about robotics, web development, and machine learning. My goal is to solve real-world problems through practical IT solutions.

> ★ **Selected as one of few students to participate in the UCLL International Project, focusing on combating water hyacinth through innovative IT solutions.**

I've worked on both front-end and back-end components, especially within educational and research-focused environments. I'm quick to learn, collaborative, and always eager to solve new problems through code.

Education

2023 - Present — **Belgium Campus iTversity — Stellenbosch Campus**
Bachelor of Computing (BComp) — 3rd Year
Areas of focus: Software Engineering, AI, Web Development

Matriculated 2022 — **Paul Roos Gimnasium**
National Senior Certificate

Technical Skills

Languages

JavaScript C# Java Python SQL HTML/CSS C++ (Arduino)

Frameworks / Libraries

Node.js Express.js EJS Flask JSP Apache Tomcat Java Swing .NET (C#) scikit-learn NumPy YOLO TensorFlow Matplotlib Seaborn

Databases

Tools / Platforms

SQL Server Management Studio SQLite Git & GitHub Postman GitHub Pages

MongoDB JavaDB PostgreSQL Render Discord API RESTful APIs

Project Experience

Water Hyacinth Detection (UCLL International Project)

YOLOv8 Python Arduino IoT

Developed a YOLOv8-based object detection model to identify water hyacinth as part of an international project focused on environmental solutions. Created a working Arduino-powered demo system that processes images in real-time and communicates results via serial interface.

ULP95 Fuel Price Prediction

Python scikit-learn Flask Web Scraping

Developed a machine learning model to predict fuel prices in the South African coastal region. Currently integrating web scraping and API input to automate data collection and prediction processes.

Student Grade Prediction

Python scikit-learn Flask ANN

Created an Artificial Neural Network-powered student grade classifier built in Python with scikit-learn, deployed via Flask on Render. The system predicts student performance based on various academic factors.

For more projects and details, visit my portfolio: https://gideonvermeulen.github.io/CV_Website

Designed & Built by Gideon Vermeulen