








Gideon Vermeulen

Software Developer & AI Enthusiast



-  gideonnicovermeulebn@gmail.com
-  +27 63 563 2963
-  github.com/GideonVermeulen
-  https://gideonvermeulen.github.io/CV_Website
-  Stellenbosch, South Africa

Profile

Third-year Bachelor of Computing student passionate about robotics, web development, and machine learning. Aiming to solve real-world problems using IT solutions. Experienced in building both frontend and backend components of applications, especially in educational and research-focused settings.

Quick to learn, collaborative, and eager to solve new problems through code. Seeking internship opportunities to gain real-world experience and contribute to software development projects.

Education

- Belgium Campus iTversity — Stellenbosch Campus

2023 - Present

Bachelor of Computing (BComp) — 3rd Year

Areas of focus: Software Engineering, AI, Web Development

Selected to participate in UCLL International Project focusing on combating water hyacinth through innovative IT solutions.
- Paul Roos Gimnasium

Matriculated 2022

National Senior Certificate

Technical Skills

Languages

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

Frameworks & Libraries

- Node.js
- React
- Express.js
- Flask
- .NET
- scikit-learn
- TensorFlow
- YOLO
- Matplotlib
- Apache Tomcat
- Java Swing
- Seaborn

Databases

- SQLite
- MongoDB
- PostgreSQL
- Redis
- MySQL
- JavaDB
- Microsoft SQL Server

Tools & Platforms

- Git & GitHub
- Postman
- Arduino
- AWS
- Docker
- SQL Server Management Studio

Projects

CampusLearn Tutoring platform

- Node.js
- React
- TypeScript
- MongoDB
- Redis
- Socket.IO
- WebRTC
- Docker
- AWS
- CI/CD
- REST API
- React
- JWT

A comprehensive educational platform connecting students and tutors, featuring a performance-oriented backend. The system includes real-time chat, a forum with live voting, video calling via WebRTC. The architecture leverages Node.js with TypeScript, using Redis for caching, MongoDB for persistence, and Socket.IO for real-time event handling. The entire application is containerized with multi-stage Docker builds and deployed on AWS via a full CI/CD pipeline using CodeBuild and ECS.

ULP95 Fuel Price Prediction

- Python
- scikit-learn
- Flask
- Public API's

Predicts fuel prices in the South African coastal region using machine learning. Integrates web scraping and API input to automate predictions.

Water Hyacinth Detection

- YOLOv8
- Python
- Arduino
- IoT

YOLOv8-based object detection model to identify water hyacinth. Created Arduino-powered demo as part of international project.

Student Grade Prediction

- Python
- scikit-learn
- Flask
- ANN

ANN powered student grade classifier built in Python with scikit-learn, deployed via Flask on Render.