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CONTACT INFORMATION

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ABOUT ME

I'm a curious and aspiring software developer who loves building software that interacts with the real world and brings value to it. I'm currently pursuing my Bachelor of Computing degree at Belgium Campus ITversity. From backend systems and API-driven architectures to machine learning, Python tools, and Arduino projects, I've explored a wide range of technologies, and I enjoy learning how software can be both powerful and practical.

Throughout my studies, I often find myself leading academic projects and stepping up to get things done. My interests include backend development, machine learning, embedded systems, and API-driven technologies. I constantly push myself to go beyond the brief and create with effort, intention, and purpose.

PROFILE HIGHLIGHTS

Currently completing a Bachelor of Computing with hands-on project experience in backend systems, ML tools, Web Development and database design.

Regularly lead academic group projects and take ownership of architecture, testing, and delivery.

Comfortable working with both hardware (Arduino) and software (Java, Python, C#, SQL).

Committed to self-learning and regularly builds personal projects for fun and exploration.

EDUCATION

- **University (2023 – Present)**

  Belgium Campus ITversity: Bachelor of Computing

- **High School (2018 - 2022)**

  HTS John Vorster: National Senior Certificate

SKILLS

- **Programming Languages:** Java, Python, C#, JavaScript, HTML, CSS, C++ (Arduino), SQL.
- **Frameworks/Tools:** .NET Framework, Swing GUI, JSP/Servlets, Node.js, Express.js, EJS, Windows Forms, Microsoft Office Suite (Word, Excel, PowerPoint).
- **Databases:** MongoDB, PostgreSQL, JavaDB (Derby), JDBC, Mongoose.
- **Concepts:** OOP, MVC, REST APIs, ML Pipelines, CI/CD Pipelines.
- **Dev Tools:** GitHub, Postman, NetBeans, Jupyter, Apache Tomcat.
- **Soft Skills:** Leadership, Project Planning, Problem-Solving, Teamwork/Collaboration.

PROJECTS

Student Wellness Management System (11 Jun 2025 – 17 Jun 2025)

Role: Backend Developer, Database Designer, Team Lead

Java desktop app to manage student appointments, counsellor feedback, and scheduling.

Tech: Java, Swing GUI, JavaDB (Derby), MVC, NetBeans, GitHub

Led the development of a Java desktop application for managing student wellness appointments, serving as team lead and backend developer. Designed and implemented the full MVC architecture, integrated the Swing GUI with a JavaDB (Derby) backend, and handled validation, database connectivity, and version control. Coordinated team workflow, assigned tasks, and ensured delivery under pressure. The successful completion of the system strengthened my ability to structure clean, maintainable code and lead technical projects from planning to deployment.

Wellness App Login - Web Portal (4 Jun 2025 – 17 Jun 2025)

Role: Backend Developer, Database Designer, Team Lead

Java web app with registration, login, and session handling for student wellness tracking.

Tech: Java (JSP/Servlets), PostgreSQL, JDBC, Apache Tomcat, NetBeans, GitHub

Developed a secure Java web application with login and registration features, using SHA-256 password hashing, input validation, and session-based access control. Built the backend with Servlets and JSP, integrated a PostgreSQL database via JDBC, and deployed the system locally on Apache Tomcat. Led backend development and system integration, from database design and CRUD testing to full-stack architecture. This project deepened my understanding of server-side Java and full-stack web development.

NoSQL E-commerce System (19 May 2025 – 29 May 2025)

Role: Backend Developer, Database Designer

Distributed backend system using MongoDB to manage product listings and orders.

Tech: MongoDB, Mongoose, Postman, JavaScript, GitHub

Designed and implemented a distributed NoSQL backend for managing product and order data using MongoDB with sharding and replication for scalability and fault tolerance. Performed CRUD operations, set up and maintained database connections, and validated system functionality through Postman testing. Conducted performance testing and explored optimization strategies to simulate real-world backend challenges, which significantly expanded my understanding of NoSQL architecture and scalable system design.

Street Sync – Racing Community Web Portal (7 May 2025 – 14 May 2025)

Role: Frontend Developer, Team Lead

Public-facing web app for racing fans to discover events, read updates, and contact organizers.

Tech: Node.js, Express.js, CSS, GitHub

Designed and developed a full-stack motorsports themed web portal using Node.js, Express.js, and EJS. Built a modular Express backend with clean routing and integrated reusable EJS templates for consistent layouts. Implemented a responsive, modern frontend with dynamic pages and in-memory contact form handling. Led the UI design, layout planning, and collaborated

on responsiveness, gaining valuable experience in structuring and maintaining scalable web applications.

Student Performance Predictor (9 Apr 2025 – 22 Apr 2025)

Role: Backend Developer (Machine Learning)

ML tool to help educators identify struggling students early.

Tech: Python, Jupyter, ML Libraries, GitHub

Developed a machine learning tool to predict at-risk students based on academic data, applying models such as Linear Regression, Random Forest, and XGBoost. Cleaned and prepared datasets, trained and optimized models, and evaluated performance using real-world accuracy metrics. Compared predictions to actual outcomes and fine-tuned parameters to improve reliability. This project provided hands-on experience with end-to-end ML pipelines and reinforced my ability to apply machine learning techniques to meaningful, real-world problems.

Investment Tracker Calendar (19 Aug 2024 – 30 Aug 2024)

Role: Full-Stack Developer

Finance-focused desktop app for visualizing investment growth over time using a calendar-based UI.

Tech: C#, .NET Framework, Windows Forms

Developed a C# Windows Forms application to simulate investment growth using compound interest, with a calendar-based UI to track progress over daily, weekly, monthly, and yearly intervals. Implemented dynamic investment tracking logic, including repeat options and real-time calculations, using dictionaries and event-driven programming. Applied OOP principles to structure the system, resulting in a responsive and user-friendly finance app that effectively combined clean UI design with practical financial functionality.

OTHER

Driver’s License: Code B

Languages: English (Fluent), Afrikaans (Fluent)