

Louis Vanstappen

louis.vanstappen@gmail.com | +32 471 83 47 35 | Groningen, Netherlands | [github/n3puio1](https://github.com/n3puio1) | [linkedin](#) | [site](#)

SKILLS

Languages

- C++, Python, Bash, Java, Rust, C, SQL, JavaScript, TypeScript, HTML/CSS, Kotlin, Dart

AI

- TensorFlow, Pandas, NumPy, SciPy, Scikit-Learn, Keras, Matplotlib

Fullstack

- UX/UI design, Unit testing, Database modeling, server management, APIs development, Effective communication

Front-end Development

- Vue, Flutter, JavaFx, Qt5, React, Angular, React Native, Native Script

Back-end Development

- Django, Flask, FastAPI, Node.js, Express, Spring, Spark Java

Database

- PostgreSQL, MongoDB, SnowflakeSQL, MariaDB, SQLite3

Technology

- Git, Docker, ROS, AWS, Nginx, VPS, GraphQL, REST, Heroku, \LaTeX , Markdown

WORK EXPERIENCE

ERIA | SOFTWARE ENGINEER

Brussels, Belgium | 2023

- Software development for the Pepper robot
- Cloud based development and management for enhanced AI capabilities

FREELANCING | SOFTWARE ENGINEER

Brussels, Belgium | 2022-2023

- Fullstack development.
- Custom enterprise software

DGENIOUS | JUNIOR SOFTWARE ENGINEER

Brussels, Belgium | 2022-2023

- Conversion of data fetching and treatment jobs to a new data platform in a production environment.
- Maintenance of staging and production AWS EC2 Linux instances.
- Extensive testing and fixing of staging data treatment jobs.

SPACE APPLICATIONS | JUNIOR SOFTWARE ENGINEER

Zaventem, Belgium | 2021

- Development of a web application integrating Earth observation and analysis services using a Vue.js front-end and Django back-end. Implemented user login, interactive map using Leaflet to search, interact, and dynamically view satellite data, and other information pages.
- Usage of Docker containers to deploy the application.

SCHOLA ULB | TUTORING

Brussels, Belgium | 2020-2022

- High school math, physics, and English tutoring.

LOUIS DELHAIZE UP SITE | STUDENT JOB

Brussels, Belgium | 2019

- Sales, cashier, aisles sorting, client support, and order reception.

NASA, GODDARD SPACE FLIGHT CENTER | INTERNSHIP

Greenbelt, Maryland, United States | June 2017

- Observation of researchers working on data from the Sun, as well as data collected by Curiosity on Mars.
- Exploration of the Python programming language and basic data decryption.

EDUCATION

Master in Artificial Intelligence - First year

Groningen, Netherlands | 2023-

UNIVERSITY OF GRONINGEN (RUG)

Specialization: Robotics

Notable courses: Deep Learning, Robotics for AI, Pattern Recognition, Machine Learning, Cognitive Robotics

Bachelor in Computer Science

Brussels, Belgium | 2020-2023

UNIVERSITY OF BRUSSELS (ULB)

Grade: Distinction

Notable courses: Object Oriented Programming, Software Architecture, Algorithms and Data Structure, Operational Research, Computer Networks, Database systems

LANGUAGES

French | NATIVE **English** | C1/C2 **Dutch** | B1/A2

PROJECTS

GENETIC DATA PATTERN RECOGNITION PIPELINE FOR IDENTIFYING TUMORS PANDAS, NUMPY, SCIKIT-LEARN, SCIPY
Creation of a tumor identification pattern recognition pipeline utilizing gene data, comprising dimension reduction, classification, clustering, and an ensemble approach to achieve heightened accuracy.

AUTONOMOUS MOVING AND GRASPING ROBOT ROS, KERAS, TENSORFLOW
Development of software enabling an omni-directional robot to autonomously navigate to designated locations, detect and identify objects through a custom model utilizing Convolutional Neural Network, and execute pick-up and drop-off tasks, incorporating ROS (Robot Operating System) and TensorFlow.

SIMULATION OF A MULTI-AGENT SYSTEM FOR CROP MONITORING USING DRONES AGENTSCRIPT
Evaluation of various monitoring techniques within a simulated multi-agent system, where drones actively oversee crops. Usage of AgentScript to allow it to run in browser.

MULTI-PLATFORM CARD STUDYING APP SPARK JAVA, JAVAfX, FLUTTER, SQLITE3
A quizlet-like application with the purpose of studying decks, sharing decks on a marketplace, and earning points. The application is capable of running on desktop, mobile, and web browsers.

GENERIC BLOCKCHAIN FOR STORING GAME RESULTS SPRING, DGS, GRAPHQL, FLUTTER, SQLITE3
A blockchain used for storing game results. Users can use the cross platform mobile app to add results that can then be signed by their opponent in order to certify the authenticity. The mobile app also allows a preview of the leaderboard where scores are calculated using the ELO rating system.

TWO-SIDED JOB MARKETPLACE WEB APP VUE, GRAPHQL, FASTAPI, POSTGRESQL, DOCKER, UX/UI
A two-sided marketplace for job seekers and headhunters or HR-Consultants. The platform allows job seekers to post their profile with details, such as previous experience, education, and salary, see what their profile looks like and chat with headhunters. It also allows headhunters to search profiles based on a multitude of criteria as well as selecting and unlocking profiles.

STICKER EDITING WEB APP VUE, FASTAPI, POSTGRESQL, S3, DOCKER, UX/UI
A sticker editing app which allows user to create, customize, and purchase stickers. Once an order is made, the sticker is converted to the proper format to be printed and shipped. Users can also track the process of their order (printed/shipped/delivered) and an admin can update these states dynamically.
There is also an admin dashboard which is used to organize orders and simplify the order process in the factory.

MANAGEABLE INVESTMENT COMPOSITION WEB APP VUE, DJANGO, MONGODB, DOCKER, UX/UI
An investment composition web app that can be edited by a logged in admin. The purpose of the web app is to allow users to view recommendations from the admin who is able to fully edit all of the text and chart data contained on the page intuitively with user-friendly inputs.

QUORIDOR C++, QT5, CMAKE, FTXUI, AI, MONGODB, MVC
Creation of a Quoridor game implementation in C++ featuring both GUI and terminal interfaces. The program adopts the model-view-controller (MVC) design pattern, dividing it into front and back-end components. Users log in, enabling features such as chatting, leaderboard checking, AI training, and inviting friends to play.

USER-FRIENDLY MANAGEABLE DATABASE VUE, DJANGO, SQLITE3, DOCKER, UX/UI
A user friendly database management web application created to easily manage and share paintings. The application allows the user to easily browse, search with optional tags, add, remove and modify a collection of paintings, which were imported from a FileMaker database. The user can also create their own collections of paintings that they can then share via a URL or a QR code. This allows the user, in this case the painter, to professionally display collections to museums.

GAME OF THE AMAZONS PYTHON, PYQT5, OBJECT-ORIENTED DESIGN, AI
Development of the game of the amazons in Python with an AI as an opponent. Playable in a terminal as well as in a GUI.

SPOTIFY ALARM PYTHON, FLASK, SPOTIFY API
Development of a Python program to create and manage Spotify alarms.

LED STRIP WEB CONTROLLER C++, REACT, ESP32, IOT
Development of a C++ program allowing the control of addressable LEDs through web requests executed by a user on a React PWA.