

EDUCATION

Bachelor of Computer Science | Université Libre de Bruxelles, Belgium

- **Expected to graduate in September 2023**
- **Relevant Coursework:** Algorithms and Data Structures, Software Engineering and Project Management, Artificial Intelligence, Systems Administration, System Design and Development, Operating Systems, Databases, Networks

Following an Odoo 13 course on Udemy, learning full stack JS web development through The Odin Project

SKILLS

- Fully Bilingual in English and French
- Proficient in Python, C++, and Java
- Experience with Linux, GIT, SQL/database management systems, Excel/VBA, and MATLAB
- Grasp of software development life cycles, methodologies, and development techniques such as Agile
- Light exposure to React.js/JavaScript/HTML/CSS
- Articulate presentation of ideas and confident speaking skills
- Adaptable to ever changing environments

PROJECTS

Quoridor

- Implementation of a Belgian board game in C++ with online multiplayer (over LAN) by taking advantage of Linux sockets
- Collaborated with a team to design, code and test an app over multiple agile iterations to meet (mock) client's expectations
- Negotiated and translated the business requirements into an SRS document that scoped and detailed technical requirements
- Worked across architecture, designing both front end using Qt5 and the back end using C++ and SQLite

Imitation of Candy Crush

- Independently driven project programmed in C++ using FLTK, an outdated library relying only on documentation
- Focalised on object-oriented programming and conceptualized the app using the MVC model

Algorithm to color graphs using only k-degenerate colors

- Implementation of a coloring algorithm in $O(n+m)$ time by taking advantage of the graph's degeneracy in Java
- Developed the algorithm from applying concepts that were solely derived from graph theory research papers

Game of Amazons

- Heavily modified chess variant programmed in Python
- Can play against an artificial intelligence based on a minimax heuristic function
- Functional GUI designed using PyQt5
- Use of algorithms such as quick hull to analyze win-conditions to determine the winner earlier

Personal Portfolio Website

- Designed using the React framework, JavaScript, HTML, CSS that showcases my projects – In development
<https://harsdua.github.io/portfolio/>

PAST JOB EXPERIENCE

FIVE GUYS - Fast Food worker | October 2021 - January 2022 | Brussels, Belgium

- Communicated and worked with a team under constant pressure
- Interacted with clients on a regular basis in French and English

ADDITIONAL REMARKS

I am a Canadian residing in Belgium for my undergrad due to my desire to explore a new continent, culture and immerse myself in French. I am eligible to work in Belgium from July 1, 2023 – October 1, 2024, via the job search year permit, and part time throughout my academic year.

Interests: Fitness, French, Theology, Psychology, Stocks and Cryptocurrencies, Classical Music, Hiking, Traveling, and Cooking
