

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 and Information Theory

SKILLS

- Fully Bilingual in English and French. Learning Dutch
- Proficient in Python, C++, and Java
- Familiar with Linux, GIT/VCS, SQL/database management systems, Excel, Kubernetes and Docker
- 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
- B permit (expected – exchange of Canadian driver's licence is being processed)

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- Independently driven project programmed in C++ using FLTK, an outdated library relying only on documentation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. I am very open to developing myself in any direction within the domain of computer science. Although I have no experience, I am very eager to learn, and I catch on quickly. I love to work in teams, but I am quite independent. I understand the business side of things and economics.

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