Benjamin Joinvil
[redacted]
French and English

[redacted]
www.benjaminjoinvil.ca

EDUCATION

Bachelor's in Software Engineering — Since 2024
École de technologie supérieure (ÉTS)

DCS in Computer Science Technology (intensive) — 2024
Cégep du Vieux Montréal

Diploma of College Studies, Social Sciences — 2021
John Abbott College

Université de Sherbrooke/Quantum eMotion — 2023
Introduction to Quantum Cryptography (Micro-internship)

SPECIFIC SKILLS

Programming Languages: Java — Android, C# (Unity), HTML, CSS, PHP, JavaScript, Python, C++

Software: IntelliJ, Visual Studio – code, Microsoft Office, Android Studio, Unity hub, PyCharm

Environments: Linux, Windows

Others: MySQL, NoSQL, PostgreSQL, PL/pgSQL, Git, GitHub, Bitbucket

Techniques: Data Analysis and Modeling (UI/UX), Cross-Platform Mobile Application Development, Video Game Development, Software Development, Web Development and Integration, Team Management and Leadership, Project Management and Agile Development, Server Management and Web Hosting

PROFESSIONAL EXPERIENCE

IT Technician/Salesperson — 2017-2019
Staples, Pointe-Claire

- Diagnose and resolve customers' technical issues, both in-store and at their homes.
- Set up and install new computers and laptops, ensuring they are fully operational and tailored to customers' needs.
- Advise customers on technology products suited to their needs and provide recommendations.
- Provide on-site technical support to solve a range of hardware and software issues.
- Stay informed about the latest products and technology trends to offer relevant solutions and recommendations.

EXPERIENCES

CIC Officer — 2018-Present
Canadian Armed Forces, Laval

Veterinary Assistant/Receptionist — 2020-2024
Vet Mobile Plus, Pointe-Claire

Assistant Manager — 2018-2020
Escaparium, Dorval

Animator — 2016-2017
Ubisoft World, Pointe-Claire

PROJECTS

Create and manage a personal website – Portfolio www.benjaminjoinvil.ca Since 2024
Personal Project

- Host the website on an Ubuntu server using Apache, on a Digital Ocean droplet.
- Implement a language-switching system (English/French) to allow users to toggle between both languages.
- Use PHP and JavaScript for managing dynamic components and optimizing performance.
- Set up cron jobs to automate maintenance tasks such as database backups and server performance monitoring.

Develop a Government Simulator (Government Simulator) Since 2024
CÉGEP Capstone Project

- Create a government simulator to replicate the functioning of public policies and administrative decisions.
- Use Unity, Visual Studio, and Visual Studio Code for game development, integrating a user interface and interactive mechanisms.
- Program simulation mechanisms to model complex political and economic scenarios.
- Implement an intuitive user interface to control different aspects of the simulator, such as budgets, laws, and public policies.
- Optimize algorithms to make user decisions interactive and dynamic.

Develop a Mobile App for Ranking Military Ranks Since 2024
Personal Project

- Design and develop a cross-platform mobile app in React Native, displaying the ranks and positions of the Canadian military, with a user interface optimized for mobile experience.
- Use Visual Studio Code for development and Android Studio for emulation and testing on different devices.
- Implement real-time language switching (French/English) for seamless internationalization of the app.
- Plan future expansion to include cadet ranks and military ranks from other countries, integrating scalable data structures and increased modularity.

Image Classification using the KNN Algorithm Since 2023
School Project — Data, Big Data, and Artificial Intelligence II

- Implement the KNN algorithm for image classification in a three-dimensional space, using advanced image identification techniques.
- Calculate the largest and smallest distances, incorporating pixel density (0 vs 1) in a bounding box (concave vs convex shapes), as well as measuring area/perimeter and the longest/shortest distances, with integration of circumscribed and inscribed circles, to improve rotation robustness and classification accuracy.
- Develop a graphical interface in Python with PySide6 (Qt) to visualize the solution space and enable interactive classification.
- Connect to a PostgreSQL relational database to manage training and test datasets (23,834 images spread across 34 classes).