

# Xuan Hoang Ha

Oakville, ON

(905) 617-0034 | hoanghaxuan2434@gmail.com | linkedin.com/in/xuanhoang24 | github.com/xuanhoang24

## TECHNICAL SKILLS

---

**Languages:** C++, C#, Java, Python, JavaScript, HTML, CSS

**Frameworks:** ASP.NET Core, Spring Boot, Next.js, Angular

**Game Engines & Graphics:** Unity, Unreal Engine, MonoGame, OpenGL, SDL2, GLSL

**Tools:** Git, Helix Core, Docker, Visual Studio, VSCode, IntelliJ, Microsoft Office Suite

## EDUCATION

---

**Sheridan College**

Oakville, Ontario

*Honours Bachelor of Computer Science minor in Game Engineering*

*Sep. 2023 – April 2027*

- **Relevant Coursework:** Game Engine Architecture, Computer Graphics and Animation, Game Tools and Data Driven, Data Structures and Algorithms, Enterprise Software Systems.

## PROJECTS

---

**2D Platformer Game** | C++, SDL2

Jan. 2025 - Dec. 2025

- Developed a 2D platformer game using **C++** and **SDL2**, featuring player movement, physics-based collision detection, and sprite animation rendering.
- Applied an **Event-Driven Architecture** to handle user inputs, maintain 60 FPS gameplay, and reduce frame latency by **15%**.
- Utilized **Object-Oriented design patterns** with **Component-Based Entity Systems (ECS)** to modularize gameplay objects and improve scalability.
- Implemented **Delta time** in the main loop to ensure consistent performance across variable frame rates.

**Graphic Shader** | C++, OpenGL, GLSL

Sep. 2025 - Dec. 2025

- Engineered custom **vertex and fragment shaders** to simulate real-time lighting and surface reflections.
- Implemented **Phong shading, texture mapping, and normal mapping** to enhance visual realism.
- Utilized **Vertex Buffer Objects (VBOs)** and **Vertex Array Objects (VAOs)** for optimized GPU data transfer, improving frame rendering time by **20%**.
- Configured and **tuned shader uniforms** to dynamically adjust color intensity and specular highlights based on light direction.

**BIABanking** | C#, ASP.NET Core, EF Core, SQLite

Oct. 2025 – Dec. 2025

- Designed and developed a banking system using **ASP.NET Core**, supporting account management, financial transactions, and KYC workflows.
- Secured financial and admin operations using **JWT authentication** and **role-based authorization**, enforcing access rules at the controller level.
- Persisted and audited transactional data using **EF Core + SQLite**, and deployed Dockerized services on **AWS EC2** behind an **Nginx reverse proxy**.

## LEADERSHIP EXPERIENCE

---

**Event Coordinator**

Sep. 2024 – Present

*Vietnamese Student Association, Sheridan College*

*Oakville, Ontario*

- Organized and supported student events with 20–40+ attendees, ensuring smooth execution.
- Engaged with participants to foster a positive and inclusive community environment.
- Promoted events through social media and campus outreach to increase participation.

## ADDITIONAL INFORMATION

---

**Interests:** Passionate about video games and game development; enjoy discussing game design and new technologies in the games industry.

**Languages:** English, Vietnamese