

# Nguyen Gia Huy

Hanoi, Vietnam • +84-974-582-392 • huy20041512@gmail.com • [LinkedIn](#) • [GitHub](#)

## EDUCATION

Thang Long University

Hanoi, Vietnam

Bachelor of Science in Information Technology

Expected Graduation: 10/2025

GPA: 3.5/4

**Honors/Awards:** Merit Scholarship for Excellent Academic Performance, Consolation Prize in Vietnamese Student Olympiad in Informatics 2023, Honorable Mention in ICPC National Vietnam 2023

**Relevant coursework:** Introduction to Computing, Data Structures Algorithms, Object-oriented Programming, Software Development, Computer Infrastructure

## SKILLS & CERTIFICATIONS

**Programming:** C++, C#, Python, Javascript

**Web Development:** Django, Node.js, ExpressJs, ReactJs

**Databases:** MySQL, PostgreSQL

**Tools:** Unity, VS Code, Git, Fork, Postman

**Design Patterns:** Singleton pattern, Observer pattern, State Machine

**Algorithmic Skills:** Solved 650+ problems on [Codeforces](#), max rating: 1428

**Languages:** Fluent in English

## PROJECTS

ElementalPowder – Game Developer | Software Engineering Course

[GitHub](#) | [Gameplay](#)

- **Design Patterns:** Applied **Observer Pattern** for UI updates and sound synchronization, **Singleton** for managing global game states, and **State Machine** for handling player and enemy behaviors.
- **UI and Audio:** Developed an interactive UI system displaying player stats, available skills, and buffs. Implemented dynamic sound effects and background music that adapt to in-game events.
- **Gameplay Mechanics:** A 2D top-down action game with level-based progression. Each level has a number of enemies, players must defeat all enemies to advance, with a **boss stage** introducing unique mechanics.
- **Combat System:** Players use bomb placement mechanics with timed explosions to clear obstacles and defeat enemies. **Skills are not available by default;** instead, players must **find and collect them** from destructible wooden crates scattered across the map.
- **Items and Buffs:** Wooden crates may contain **buffs** (speed boosts, shields, healing) or **skill pickups** that allow players to use special abilities. Managing these resources effectively is key to survival.
- **Tools & Technologies:** Unity, C#, Tilemap, Animator, Audio Mixer, Observer Pattern, Singleton, State Machine.