Thomas DeLange

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940-435-4582

Github

Portfolio

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**Skills**

**Languages**: C++, C, Python, C#, GML, HTML/CSS
**Technologies**: Box2D, Arduino, Raspberry Pi, Git, Embedded Servers
**Game Dev**: Custom engines, Unity, GameMaker
**Core Concepts**: Physics simulation, rendering pipelines, embedded systems

**Education**

A.S. General Studies
- NCTC 2024

B.S. Computer Science
- UNT Expected 2027

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**Projects**

**2D Fantasy Platformer | Level & Engine Systems**
*Team Project | C++*

- Built a complete level pipeline from authored data to runtime rendering and physics
- Integrated LDtk-authored levels with custom parsing, rendering, and Box2D collision
- Optimized level rendering via camera-based tile culling
- Collaborated with a small team on a custom C++ game engine

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**Wireless DM-Controlled Magic Compass**
*Embedded Systems Project | C++ | Arduino*

- Developed firmware for a wireless, servo-driven prop device
- Implemented an embedded web server for real-time remote control
- Integrated motor control, LED feedback, and networking on constrained hardware

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**Wireless DM-Controlled Datapad**
*Embedded / Application Project | Python | Raspberry Pi*

- Designed and implemented all software for a custom handheld touchscreen device
- Built a local web server enabling remote message management
- Implemented persistent storage and GUI systems for live gameplay use

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**2D Metroidvania Game (Solo Project)**
*Game Development | GameMaker | GML*

- Designed and implemented all gameplay systems and mechanics
- Built a rune-based directional input system for spell casting
- Developed custom UI, animation, and lighting systems

**Portfolio**

Scan to view Project Demos