

SAMUEL SCHIMMEL

GAMEPLAY & AI PROGRAMMER

samuel@samuelschimmel.com

PROFICIENCIES

Languages: C, C++, C#

Engines: Unreal, Unity

Development: Linux, Visual Studio, Cygwin, GCC, Clang, Make, Doxygen, Dr. Memory, Valgrind

Multimedia: Animate, Photoshop, InDesign, Maya, Substance Painter

Design: Axure RP, XMind, Excel

Version control: Perforce, Git, SourceTree

Productivity: Confluence, Slack, Trello

STUDENT PROJECTS

Technical Director, *Woe to the Vanquished*, 2017 to 2018

3D, systems-driven, emergent FPS developed in Unreal

- Implemented combat gameplay, AI, object interaction, inventory system, objective system, and feedback in C++
- Emphasized inheritance to reuse code and ensure substitutability of agents and interactive objects
- Used deserialization to make gameplay systems data-driven, customizable, and transparent for designers
- Supported extension of C++ classes in Blueprint using dynamic multi-cast delegates
- Developed a player modeling system to provide dynamic difficulty as well as runtime and serialized analytics
- Authored technical documentation and contributed to UX design documentation

Technical Director, *Being Evelyn*, 2016 to 2017

2D, narrative-driven, social stealth and hacking game developed in Unity

- Implemented turn-based gameplay, AI, diegetic menus, HUD, A* pathfinding, cameras, adaptive music system, and branching dialogue
 - Designed project architecture to ensure compatibility of systems rapidly developed by multiple team members
 - Planned, delegated, and accurately estimated the scope of implementation tasks
 - Identified performance problems and optimized intensive systems
 - Conducted code reviews and helped a team of five designers learn C#
 - Abstracted and extended Unity functionality into usable content design frameworks
 - Worked with designers to deliver tools that fulfilled their needs, and gameplay systems that fulfilled players' needs
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PROFESSIONAL EXPERIENCE

Teaching Assistant, DigiPen Institute of Technology

GAT 240 (Technology for Designers), GAT 250 (2D Game Design I), GAT 260 (User Experience Design I), CS 116 (Introduction to Computer Technology and Programming), CS 175 (Scripting Languages), CS 176 (Advanced Scripting), CS 185 (C++ for Designers), CS 280 (Data Structures)

EDUCATION

Bachelor of Science in Computer Science in Real-Time Interactive Simulation

DigiPen Institute of Technology, 2020

Minor in Game Design

Bachelor of Arts in Political Science

Western Washington University, 2014