

# LOREN TAPIA

Game Tools and Technology Programmer

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## EDUCATION

**DigiPen Institute of Technology**                      **Expected Graduation: 04/09**                      **09/05 – Present**  
Major: Real Time Interactive Simulation (Computer Science) , 5 times dean's list, 3.7 GPA

## SKILLS

Languages:                      C/C++ (6 years), C# (2 years), Java (4 months), Game Boy Assembly (3 months)  
Network Programming:       Winsock (2 years), TCP (1 year), Reliable UDP (1 year)  
Graphics Programming       DirectDraw (2 years), Win32 Graphics API (1 year), Simple Direct Media Layer(6 months)  
Audio Programming:         FMOD (6 months), FMOD Ex (6 months), DirectSound(3 months)  
Web Programming:            HTML, CSS, PHP with MySQL, Java Script, Flash 5 (\*1 year)  
Misc. Programming:         STL (3 years), SSE optimizations, regular expression(6 months)  
Software:                      Microsoft Visual Studio (6 years), Visual Assist, Visual HAM(3 months), Tortoise SVN,  
eProject (2 years), Microsoft Office (Word, Excel, PowerPoint, Project, Visio), Adobe  
Photoshop, 3ds Max, Doxycomment, Matlab, Scilab, FL Studio

## WORK EXPERIENCE

**Engineering Intern**                                      **Monolith Productions, Inc.**                                      **07/08 – 02/09**  
Worked in C++ to update game object system, convert STL to custom containers, and worked extensively on the tools updating and bug fixing. I worked with MFC and ToolkitPro (an MFC extension library).

## GAME PROJECTS

**Matter Shatter**    **Technical Director / Programmer**    **09/07 - Present**  
Worked in a four man team to create a 3D platformer where the player is allowed to fly around and dynamically destroy the environment. Designed and wrote much of the game engine, wrote a game state manager, implemented Constructive Solid Geometry for real time dynamic breaking objects, built a level editor in C#, wrote math library, as well as many other modules and game play code.

**Mercury Tools**    **Architect / Programmer**    **04/07 – 09/07**  
Worked as a member of a three man team to make an advanced network engine which includes: reliable UDP, thread safe messaging system, re-usable object factory, and serialization to be reused in multiple game projects.

**Intercepted Trancemission**    **Game Designer / Programmer**    **04/06 – 04/07**  
Member of a 4 man team to produce a 2D side scrolling space shooter with dynamic audio elements. Built a tool in C# for rapid level creation/alteration, built the particle system, worked on game play mechanics, and used FMOD to synchronize audio elements.

**Neptune**    **UI Designer / Programmer**    **01/07 – 04/07**  
Part of a 4 man team to build a high level audio tool similar to FMOD designer. Managed sound banks, wave banks, and creation of parameterized DSP effects. Built the C# GUI end of the tool.

**Akula**     **Technical Director / Programmer**     **04/05 – 04/06**  
Member of a 5 man team to make a submarine simulation. Used TCP/IP to implement a lockstep model for networking in the game. Created the Technical Design Document to guide the creation of the game engine. Built a level editor in C++ using Win32 API calls.