

# Luyao Tian

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<http://luyao.tian.me/>

## Engineering Skills

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- *Programming Language:* C++, C#, C, Java, Python, Lua
- *Game Engine and Framework:* Unity, Unreal, MonoGame (XNA), Lumberyard, Phaser, Qt, Direct3D, OpenGL
- *Version Control:* Git, Subversion, Perforce

## Work Experience

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### Something Dark Studios

Feb 2017 – Present

- [A Walk in the Woods](#)  
*Gameplay & UI Engineer*
  - Implemented character movement system
  - Implemented animation sequences for main characters
  - Implemented Day Night Cycle system with conditional check for Win/Lose state
  - Implemented functionalities for UI elements
  - Implemented bugfixes for various aspects

### EAE Master Game Studio

Aug 2016 – May 2018

- [Memory Management System](#) (Part of a [basic game engine](#))
  - Custom Block Allocator with 4 Byte Alignment, Guard Band, Fixed Sized Allocator and Bit Array written in C++
- [Simple Graphics Assets Pipeline](#) (based on template given by [John-Paul Ownby](#))
  - Simple Graphics Assets Pipeline that contains Asset Build Pipeline utilizing Lua and assets management including shaders, effects, sprites and textures written in C++
- [Illuminary](#)  
*Gameplay & Audio Programmer*
  - Global Game Jam 2017 project with a team of 12. A two-player exploration mystery game where the players' only goal is to find each other amidst a vast underwater pantheon. Made in Unreal Engine 4.14.3 with Blueprints
  - Implemented traveling sound system for projectiles over network so that players can only hear projectiles launched by others
- [Outlaw Revolver: Gunfight Reloaded](#)  
*AI & Gameplay Programmer*
  - An iteration of arcade Gun Fight made with a team of 6. Made in Phaser 2.5.0 with JavaScript and HTML5
  - Implemented AI system for responsive actions and character movement system

## Individual and Team Projects

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### XenoBand (Source Code: [GitHub](#))

Production Cycle: 4 months

- A music processing & production software made with a team of 4. Made in Qt Creator 4.2.1 with C++
- Role: MIDI Editor and UI Programmer
- Work: Implemented MIDI displaying and editing system. Implemented UI functionalities

### Reversilation

Individual, Production Cycle: 2 weeks

- A classic Reversi (Othello) game made in Unity 5.3.4 Personal Edition with C#
- Role: Designer, Gameplay and AI Programmer
- [Game Code](#): Implemented Minimax algorithm (both with and without Alpha-Beta Pruning), game rules for Reversi, UI functionalities and background music

## Programming Education

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The University of Utah | Salt Lake City, UT

Aug 2016 – May 2018

### Master of Engineering

GPA: 3.77

- Entertainment Arts & Engineering

Iowa State University | Ames, IA

Aug 2012 – May 2016

### Bachelor of Science

GPA: 3.32

- Computer Science and Mathematics