# Luyao Tian

contact@thisisluyaotian.me ~ 515.203.5353
http://luyaotian.online/

## Engineering Skills

- *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

**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 - Present*

- **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

**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

*The University of Utah* | Salt Lake City, UT                                               ***anticipated 2018***
**Master of Engineering**
- Entertainment Arts & Engineering

*Iowa State University* | Ames, IA                                               *degree awarded May 2016*
**Bachelor of Science**
- Computer Science and Mathematics