Thompson Lee

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Portfolio: http://asperatology.me

Objective

Full-time positions in programming (software engineering).

Projects

Master's Project: Real-time Strategy Unit Balancing Simulation Tool, June 2015 - Current

- Aimed to reduce game development time by simplifying unit balancing, using Unity in C#.
- Built a multi-player network game to allow immediate playtesting via human vs. human players.
- Built a single-player local game to playtest via human vs. A.I. bot for iterations and tuning.
- Built a simulation mode where two opposing A.I. bots compete against each other.

Team Collaboration Project: Get Debt, March 2015 – May 2015

- Led a team of 4 to create a game using Unreal Engine 4 in C++, based on satire of student loans.
- Used hi-poly models, worked with animations and finite states machines, implemented A.I bots.

Independent Project: Rotation, January 2015 – February 2015

- Developed a simple game running in a Linux terminal environment using Dragonfly engine in C++;
- Played with simple text-based animations and game mechanics inspired by Perlenspiel game engine.

Game Engine Development: Dragonfly, WPI, September 2014 – October 2014

- Designed a 2D text-based game engine that handles creation and destruction of game objects, manipulation of game entities, and collision handling and response mechanisms.
- Programmed and implemented a game engine from scratch on a team of 2 in C++ for Linux.

Independent Project: Pokémon Walking, December 2013 – July 2014, Hiatus

- Developed a top-down role-playing game in Java from scratch without using existing game engines.
- Created a game level editor in Java to assist in creation of custom levels and areas for the game.
- Iterated upon game mechanics used in original games for future implementations and game design.

Independent Project: Pixavive Survival, October 2013 – February 2014

- Implemented game A.I. using A* pathfinding algorithm for units in a real-time strategy game.
- Balanced the game by adding a cooldown system and reducing the complexity of the game rules.

Major Qualifying Project (MQP): Marble Run, September 2012 – May 2013

- Used accelerometers and gyroscopic sensors as inputs for a top-down tilt-and-roll game written for Android for immersive gameplay.
- Designed and programmed the game engine in Java as the lead programmer in a team of three.

Independent Project: Bluetooth 5-way Relay Chat, January 2013 – February 2013

- Utilized Bluetooth on multiple Android smartphones and devices to scan, discover and connect to each other simultaneously using a server-client model.
- Experimented the hypothesis that it is possible for up to five devices can connect when all five devices are relaying together within a short range.
- Connections have been tested to send and receive text messages successfully.

Education

Master of Science in **Interactive Media and Game Development**
Worcester Polytechnic Institute (WPI), May 2016

Bachelor of Science in **Computer Science and Information Engineering**
National Taitung University (NTTU), July 2013

Work Experience

Student Lab Administrator, Worcester Polytechnic Institute, Worcester, Massachusetts, USA
Part-time Job, September 2015 – Current

Frontiers TA, Worcester Polytechnic Institute, Worcester, Massachusetts, USA
Full-time Job, July 2015 – July 2015

Officer, National Police Agency, Special Police Corps, Taipei, Taiwan
Conscription/Military Service, August 2013 – July 2014

Waiter, No Borders Family Restaurant, Taitung, Taiwan
Part-time Job, March 2013 – June 2013

Skills

Programming Languages: Java, C++, C, C#

Tools: Unity, Unreal Engine 4, Adobe Photoshop, GIMP, GraphicsGale, Paint.NET, Audacity, Visual Studios

Others: TortoiseGIT, TortoiseSVN, Trello, Corel Draw X4, Camtasia Studio 8, Fraps, Razor Hydra VR (Virtual Reality), ZBrush 4R7, Autodesk Maya 2015/2016

Foreign Language: Chinese (Mandarin, Fluent)