John Groot

Technical Designer

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EXPERIENCE

Robomodo, Chicago, IL — *Contract Software Engineer*

May 2015 - May 2016

Worked at a Chicago game studio, updating and developing mobile games in Unity using C#. Also contributed to several unreleased projects in the form of level and gameplay design.

EDUCATION

DePaul University, Chicago, IL — Bachelor's in Computer Game Development

September 2013 - Present

Ongoing fourth year student with a focus in Gameplay Programming. In Honors program with cumulative GPA of 3.74. Graduating in Early June 2017.

PROJECTS

Pakkit — *Game Release as Technical Designer*

Designed and programmed a mobile development project for Zoro, a Chicago tool distribution company. Available on both Apple and Google Play stores.

http://www.john-groot.com/pakkit

Tots' Life — *Game Release as Technical Designer*

A Semi-Finalist in IndyPopCon's Reboot Game Awards, and accepted into other videogame events such as BIC Fest, Tots' Life began as the winner of DePaul's 2016 Global Game Jam.

http://johngroot.itch.io/tots-life-0

http://bit.ly/tots_trailer

Dusk — *Upcoming Game Release as Technical Designer*

Prototyped in an advanced game development class, *Dusk* is a contemplative mobile game meant to invite players into serene setting to skip rocks. The game will be released on iOS within the next several weeks.

http://www.john-groot.com/dusk

http://bit.ly/Dusk_trailer

SKILLS

Programming Languages:
C++
C#
Python
Swift
Javascript
Formally trained in OO design techniques with these languages

Software:
Unity
Unreal Engine 4
Maya
Xcode (iOS Dev Tools)
Photoshop
Perforce
Trello
Slack
Asana
Parse
Git

Please visit http://www.john-groot.com/ **for an extended portfolio of my work.**

Referral Contacts

Richard Ho:

Producer at Robomodo

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Game Development Professor

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EXPERIENCE (cont.)

DePaul University, Chicago, IL — Bachelor's in Computer Game Development

C++ Optimization

- ➔ Investigated and practiced effective C++ programming techniques.
- ➔ Programmed heap memory system mean to override C++ new and delete functions.
- ➔ Learned optimization practices utilizing caching, data alignment techniques, and usage of SIMD operations.

C++ Game Engine Development

- ➔ Developed game engine system in C++ on top of DePaul's existing Azul engine
- ➔ Programmed a collision system utilizing bounding spheres, bounding boxes, and .
- ➔ Programmed a input management system using the flyweight pattern.
- ➔ Programmed a game object system using multiple inheritance and a factory pattern to manage object activation.

Robomodo, Chicago, IL — *Contract Software Engineer*

Pakkit

- ➔ Worked in Unity C# to develop Pakkit, a real-time mobile arcade game.
- ➔ Discussed, implemented and tested design and technical problems throughout entirety of development.
- ➔ Integrated mobile services such as iOS GameCenter (achievements and leaderboards), Flurry analytics, and Google Play Games.
- ➔ Worked with client's IT department to integrate a unique and randomized coupon generation system for the player to incrementally unlock.
- ➔ Integrated a mobile UI system that allowed for the game to be played in both landscape and portrait orientations.
- ➔ Built and tested the game through Xcode and distributed with Testflight. Worked similarly on Android builds.

Unreleased Prototype Mobile Accessory

- ➔ Created a system to integrate a wireless mobile device into Unity.
- ➔ Required adapting existing code for Android to be used in Unity's scripting environment.
- ➔ Researched and debugged problems surrounding audio input frequency analysis with Unity's audio input API.

Unreleased Mobile Strategy Game

- ➔ Worked in Unity to create levels for an unannounced mobile turn based strategy game.
- ➔ Implemented and tested 30-40 levels for a variety of unique mechanical contexts.
- ➔ Worked with other designers to develop new characters and skills to be used in the game.

Dusk — *Upcoming Game Release as Gameplay Programmer*

- ➔ Implemented and iterated upon a mechanical representation of skipping a stone within a digital system that embellished and drew attention to the way that the player interacts with their touch device.
- ➔ Programmed a touch control system to recognize mechanic dependent actions like dragging a finger on a screen or doing a flick-like motion on the screen.
- ➔ Worked to ensure performance optimization and stability on mobile devices in Unity.