David Knopp

Programmer / Game Developer

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Summary

I am a driven programmer seeking a full-time position with a team who shares the mindset for making fun, creative games. As a developer with experience working on small teams, I bring the dedication and temperament for working closely with all disciplines to produce the most engaging experiences we can.

Work Experience

E-Line Media – Seattle, WA   **May 2015 – July 2017**

Unannounced Project (PC/Mac/PS4/XBOX One - Unity 5.6)

- Worked closely with artists to design and implement custom fog and lighting effects to stylistically mimic underwater environments
- Implemented a utility AI system to create believable creature behaviors quickly
- Created a dependency injection framework to help facilitate code modularity and testability
- Implemented an animation effect spawning system to provide a simple, user-friendly workflow for adding effects (i.e. audio and particles) to the game
- Integrated FMOD into the project and created custom audio solutions to empower sound designers
- Created various development tools including a DLL copying tool, an in-game debug console, and a system for defining scene flow
- Added various gameplay features including an ability system with accompanying graphical effects and shaders
- Pitched and developed various rapid prototypes within small teams as well as independently

Never Alone: Ki Edition (Android/iOS - Unity 4.7)

- Leveraged Unity's UGUI system to develop an interface tailored for mobile
- Maintained and extended the localization workflow supporting 17 languages
- Integrated I OS and Android achievements using their respective APIs

Never Alone: Foxtales (PC/Mac/PS4/XBOX One - Unity 4.3)

- Helped develop gameplay features and fix bugs in a large, pre-existing codebase

Student Projects

Book of Dreams   **June 2014 – May 2015**

2D Beat-em-up (PC – Unity)

- Designed and implemented enemy AI using a custom behavior tree framework
- Implemented a system to generate corner graphs for pathfinding
- Developed a fuzzy logic system used for enemy attack selection
- Created an automated gameplay testing system to simulate player input

Education

DigiPen Institute of Technology – Redmond, WA   **2011 – 2015**

- BS in Computer Science in Real-Time Interactive Simulation
- Minor in mathematics
- 3.79 cumulative GPA and maintained Dean's list for 4 consecutive years

Skills

Technical
Component-Based Design
Data Structures
Engine Architecture
Gameplay & AI
Object Oriented Programming
UI Programming

Math
Fuzzy Logic
Linear Algebra

Languages
C# (proficient)
C / C++ (proficient)
CG Shader Language
(Knowledgeable)

Tools
ILSpy
Jira
Maya (familiar)
Mercurial
SVN
Unity3D
Visual Studio

APIs
FMOD
Google Play Games
iOS Game Center
OpenGL