

Randy Knapp

Gameplay/UI Programmer – UI & Localization Specialist

randy.bravo2@gmail.com

(425)344-8235

www.randyknapp.com

Work Experience

Senior Software Engineer – Respawn Entertainment, EA (November 2020 – Present)

*Worked with an experienced team to design and implement a new, efficient, user-friendly UI framework for **Apex Legends**. Collaborated with User Experience team to gather requirements and prepared designs that met their needs. Supported the Apex Legends live service with bug-fixes and other feature support.*

Software Engineer III – PopCap Games, EA Seattle (October 2015 – October 2020)

*UI Tech Lead and Gameplay programmer on the upcoming **Plants vs. Zombies 3** mobile title using Unity and C#. Helped develop, integrate, and support a data-bound UI system using Unity GUI. Educated the team on its use and created tools to help designers and artists use it. Designed and implemented the client architecture. Developed myriad gameplay systems. Collaborated closely with the art and design teams to deliver on vision and on time.*

*Gameplay and UI programmer on the mobile title **Bejeweled Stars** for iOS and Android shipped in the summer of 2016 using Unity and C#. Developed systemic UI architecture using the Unity game engine. Worked closely with designers, artists, UX designers and project managers to develop and integrate game features. Features developed include: emoji messaging system, crafting system, constellations system (game progress tracker), full-screen UI navigation, asset bundling pipeline and tools. Gained high proficiency in Unity development.*

*Live product support developer on the mobile title **Plants vs. Zombies 2** for iOS and Android using C++. Shipped several updates for PvZ2, including new plants and updated gameplay. Spearheaded and developed a procedural level generation system to assist in designer level creation work. Worked with senior devs and other developers across PopCap to create an environment of high-quality code and a set of Clean Code standards to be held accountable to.*

Valheim Modding – Hobby Project (March 2021 – Present)

Released a handful of very popular mods for Valheim by Iron Gate Games, an open-world survival indie game. Total download count over 700,000.

Subnautica Modding – Hobby Project (January 2018 – Present)

Premier modder in the Subnautica modding community. Spearheaded the QMods modding framework. Created 16 popular mods with a combined download count of over 2 million downloads.

Lead UI Programmer/Localization Specialist – Fun Bits Interactive (April 2014 – September 2015)

*Lead UI programmer on the downloadable PS4 title **Fat Princess: Adventures**. Integrated a Flash-based UI system using RAD Game Tools' Iggy technology. Built a fast, usable, UI system in ActionScript 3.0 and C++ for use by others. Scripted the majority of the game's UI in collaboration with the UI artist. Led the localization effort, starting early in the project by creating a modular, data-driven localization tool and system that integrated with Sony's localization team. Additionally, assisted designers as a gameplay programmer.*

UI Programmer – 343 Industries (August 2013 – April 2014)

*Worked as a UI engineer on the UI team for **Halo 5: Guardians**. Built a system to integrate the UI system with the in-world head's up displays attached to weapons like iron-sights.*

Gameplay/UI Programmer – ArenaNet (October 2011 – August 2013)

*Shipped award-winning and game-of-the-year **Guild Wars 2** as part of the gameplay programming team at ArenaNet. Built the UI and system for the Patcher/Launcher using Scaleform/Flash. Worked on many inter-disciplinary teams on a variety of features including: cinematics, patching, commerce, minimap, item preview, design support, launcher, commerce support and others. Supported a live, massively-multiplayer, online product.*

Gameplay/UI Programmer – Signal Studios (October 2010 – October 2011)

*One of two main programmers on **Toy Soldiers: Cold War** for Xbox Live Arcade.*

Lecturer – DigiPen Institute of Technology Singapore (January 2010 – October 2010)

Skills

C/C++	Shipped six titles in engines extensively using or exclusively using C++.	
<i>Proficiency:</i>	<i>Experience:</i>	<i>Work:</i>
Very High	13 years	localization systems, serialization systems, gameplay and design tool integrated systems,
Very In-Depth		external library integrations, Scaleform/Iggy integrations, and others
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Unity/C#	Worked on Bejeweled Stars, Plants vs Zombies 3, and several mods in the Unity engine.	
<i>Proficiency:</i>	<i>Experience:</i>	<i>Work:</i>
Very High	7 years	Several gameplay, UI and tool systems for mobile products
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Other Languages	Squirrel Script, ActionScript 3, Lua, Javascript, JSON, HTML5/CSS3, MySQL, XML, Go, Python	

Education

B.S. in Real-Time Interactive Simulation (*DigiPen Institute of Technology, 2010*)