

Daniel Plemmons

Interaction Designer and Software Engineer
for Emerging Technologies

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I craft emerging technology products and services that empower people. With my reciprocal skills in interaction design and software engineering, I move comfortably from blue-sky concept through to production polish. I have a knack for building usable, customer focused experiences under tight deadlines. I'm at my best learning new skills and tackling tough challenges—working with passionate collaborators, building solutions for complex, real-world problems.

Professional Experience

Microsoft - Mixed Reality at Work

August 2016 – Present

My team develops business applications for Microsoft's HoloLens and Windows Mixed Reality immersive headsets using Unity3D. I work in close collaboration with art, design, engineering, research, and product management teams, all with diverse backgrounds. Beyond my core design and engineering work I actively contribute to customer research, usability testing, and growing the studio's design culture.

Senior Interaction Designer - Experience Studio: Central Team (May 2018 - Present):

My team supports Experience Studio product teams including Layout and Remote Assist.

- Supported designers and artists across the Experience Studio with design documentation and research, rapid prototyping, and reusable UI components and patterns.
- Coordinated with teams across Microsoft's Mixed Reality organization to set our products up for success.
- Evangelized for the design discipline and built design culture throughout the studio.

Senior Interaction Designer - Dynamics 365 Layout (August 2016 - May 2018):

Microsoft Layout is an enterprise space planning application for HoloLens and Windows Mixed Reality.

- Drove design on Layout from early prototypes through to commercial release.
- Contributed to customer research, envisioning, design, prototyping, and production engineering.
- Influenced design across the product and led the design of key features including room scanning and visualization, object manipulation, mixed world UI behaviours, first time user experience, and more.
- Mentored, onboarded, and guided several new designers as the team grew and evolved.

Leap Motion: Interaction Designer and Software Engineer

October 2013 – July 2016

Leap Motion produced sensors that track hands in 3D space for AR / VR input. I produced desktop and VR applications key to Leap Motion's strategic initiatives. I contributed to the development of new devices; introduced user testing to the product development process; and created new best practices, design patterns, and techniques for VR and motion control development.

Software Engineer: Devices Team (October 2015 - July 2016):

- Developed algorithms to control software and hardware systems that manage the radiance of images coming from the Leap Motion cameras.

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- Developed novel stereoscopic camera calibration method, along with a hardware jig and software tools for factory operators that reduced calibration times from several minutes to a few seconds.
- Developed C embedded systems firmware and C++ software integration for new Leap Motion devices.

Technical Lead & Interaction Designer: VR Demos and UI Team (November 2014 - October 2015):

- Created a VR/AR scifi cockpit demo to explore: hybrid physical and motion control interfaces; visual and audio feedback mechanisms for motion control, and video passthrough AR.
- Built a VR Planetarium demo / incubation space for Leap Motion's Unity3D VR UI framework.
- Designed and built reusable Unity3D UI framework with fundamental controls and data-binding.
- Developed a system for blending Unity Animation and Leap Motion powered animation in Unity3D.
- Developed a visual scripting tool for managing user facing objectives and in-app events.
- Prototyped temporal warping algorithms and effects to align Leap Motion tracking with VR displays.

Interaction Designer and Engineer: VR Operating Systems (September 2014 - November 2014):

- Designed and prototyped a motion controlled VR app launcher and OS overlay. (Unity3D/C#)
- Collaborated with platform engineering team to develop VR/AR "Quick Switch" transition and plugin.

Interaction Designer and Engineer: Motion Controlled OS Extensions (March 2014 - August 2014):

- Designer and front-end developer on Shortcuts desktop OS control application. (C++)
- Conducted user-research program focused on usage patterns in Windows 8.
- Designed and developed motion control interactions for Windows 8's Metro UI. (HTML5/Javascript)

Sifteo: Developer Relations and Games Evangelist

January 2013 – June 2013

Sifteo developed a novel tangible gaming platform focused on kids, families, and education.

- Worked with developers to guide their design and dev efforts through Sifteo's publishing process.
- Managed Sifteo's presence at trade-shows and events including: GDC, E3, and Global Game Jam.

Zynga: Game Designer – Mobile

July 2011 – December 2012

Zynga developed social games for Facebook and mobile.

- Responsible for game-balance, systems design, and content pipeline for new IP game.
- Handled Cityville: Hometown and Forestville's weekly content cadence.

Speaking

- BUILD 2018 - Building Applications at Warehouse Scale for HoloLens
- VRDC @ GDC 2018 - Untethered: Designing Apps Beyond Room Scale
- IndieCade East 2015 - Tips From the Metaverse: Building VR Experiences with Motion Control
- SIGGRAPH 2014 - Creating next-gen 3D interactive apps with motion control and Unity3D

Education & Awards

Savannah College of Art and Design (2007 - 2011): BFA – Interaction Design and Game Development

IndieCade 2011 Finalist - Black Bottom Parade game installation