Drew Gottlieb

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EXPERIENCE

2018+	**Valve** Software Engineer	Building features and UX improvements for the SteamVR platform. Working with external companies to integrate new tools for our users. Using C++, DirectX 11, React, and Typescript.
2017	**Microsoft** Software Engineer Intern	Built new Windows experiences around novel interaction models.
2017	**Google** Software Engineer Intern	Empowered creativity with new features for *Tilt Brush*, a virtual reality experience for painting in 3D, including a brush stroke selection and manipulation tool. Prototyped new input methods.
2016	**Google** Software Engineer Intern	Reduced friction for returning users to Google's mobile flight search airport with new ease-of-use features. Used Javascript and Java. Additional project: Prototyped a virtual reality game using C# and an HTC Vive.
2015	**Microsoft** Software Engineer Intern	Implemented consumer-requested enhancements to the Action Center on Windows 10 and Windows 10 Mobile. Used C++/CX and Xaml.
2015	**Google** Software Engineer Intern	Improved scalability and performance of the open source Mercurial distributed version control system. Used Python and C.
2014	**Microsoft** Software Engineer Intern	Developed a web interface for managing a cloud storage solution in Azure.
2013	**Unisys** Software Engineer Intern	Integrated an internal patch management system with the Eclipse IDE. Used Java.

EDUCATION

Rochester Institute of Technology
B.S. in Computer Science
Member of RIT's Computer Science House → csh.rit.edu
Class of 2018

PROJECTS

Shared Environment between VR and MR → github.com/dag10/HoloViveObserver
Developed a proof of concept where an immersive virtual reality session can be observed with one or more HoloLens glasses in real time.
Uses Unity and C#, built on an HTC Vive and HoloLens.

3D Engine → github.com/dag10/DrewGraphics
Ongoing development of a personal 3D engine for practicing graphics techniques.
Supports forward and deferred rendering, screen-space ambient occlusion, shadow maps, and virtual reality with SteamVR.
Scenes built around a composable entity component system scene graph.
Uses C++14 and either OpenGL 3.3 or DirectX 11. Targets Win32 and macOS.

Dorm shower music player → github.com/dag10/Soapy
Dorm members that link their Spotify account can tap their RFID card in the dorm shower to hear their music.
Uses Android, Arduino C++, PHP, and MySQL.

Real-time shared music queueing platform → github.com/dag10/DJ
Users can upload music into their song queue, join a virtual room, and take turns listening to music together.
Uses Backbone.js, Express, Socket.io, MySQL, and ffmpeg.

Remotely Operated Underwater Vehicle (ROV)
Wrote on-board software in C++, and remote control software in Java.

Multiplayer Platform Game Engine
Used C++ and SFML to create a networked multiplayer 2D platform game engine.

SKILLS

Languages	C++, Swift, Typescript, C#, Python, Java, Javascript, SQL, HTML/CSS
Platforms	React, SteamVR, Qt5, DirectX 11, OpenGL 3
Tools	Vim, VS Code, Visual Studio, XCode, Unity