

Andrew R McHugh

turns R&D ambiguity into meaningful products.

Strategy • Design • Engineering

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Experience

Wist: Immersive Memories MAY 2021 – 2026

Founder, CEO (Design, Eng, Product, R&D)

Turned video into immersive, replayable memories across iOS, Quest, and Vision Pro. Processed 8,800+ memories for 1,700+ users, with 18,600+ waitlist sign ups. Worldwide press including Vice/Motherboard.

Spatial design & prototyping. Crafted platform (capture, processing, playback). Must be as easy as video, while delivering a sci-fi immersive UX across screens and headsets, while being interpretable.

Wide & deep technical lead. Led engineering across codebases (iOS, Quest, Vision Pro, Firebase, reconstruction pipeline). Led deep CV/ML work on the volumetric reconstruction pipeline including pipeline architecture and rectification layers.

Led 0-1 product development. Raised ~\$1M from angels and VC. Hired and lead a team of four. Set vision and priorities, adjusted with changing market and new insights. Told the story to press, investors, the public, and users. From first prototypes to shipping product.

Samsung Research America XR Design Group FEB 2017 – MAY 2021

Team Lead & Senior Designer NOV 2019 – MAY 2021

Senior Designer FEB 2019 – MAY 2021

A precursor to Galaxy XR. Explored the opportunities and constraints of headsets across OS, apps, and interactions.

Led an AR/VR design and development group. Demonstrated vision to executives, partners, and visiting dignitaries. Created and managed the process that let us quickly explore the possibility space going from ideas, rapid prototypes, high production prototypes, and video documentation. Led and supported hiring process.

Spatial design & prototyping. Led investigations across operating system, apps, and interactions. Collaborated on prototypes and user studies, de-risking explorations. Bridge design and engineering in a context where device capabilities were often changing. Submitted 10+ patents with 9 granted.

Earlier

Elementary/Echo: Client work in grad school. PM, Prototyping Lead, UX. JAN 2016 – DEC 2016

Freelancing & Agency: Shipped web apps. UX Designer, Prototyper, & Front-End Web Developer. FEB 2014 – AUG 2015

The What If...? Conference: TED-esque curiosity conference. Founder, Co-Chief Curiosity Curator, Producer, Designer. NOV 2010 – JUN 2014

Additional experience details + personal AR/VR research in my portfolio.

Education

Carnegie Mellon University

AUG 2015 – DEC 2016

Master's of Human-Computer Interaction, incl. dual degree with M-ITI in Portugal

Westminster College

AUG 2009 – MAY 2013

Philosophy & Science of Information
Minored in Mathematics & Physics

Skills

Design & Production

Unity, Blender, Figma, Sketch, Premiere Pro, DaVinci Resolve, Rive, Qualitative & Quantitative User Research, Procreate, Keynote, Reality Scan / Reality Capture

Programming Languages

Swift, Python, JavaScript/TypeScript, C#, HLSL, Metal Shading Language, HTML/CSS

Frameworks

SwiftUI, AVFoundation, Metal, ARKit, RealityKit, OpenCV, Open3D, PyTorch, Streamlit, Scikit Image, Anaconda, Rerun, Git, Mixpanel, Firebase (Firestore, Storage, Auth, Cloud Functions, +), FFMPEG, Loops, Jekyll, Node, Mocha, Arduino, LLM/AI Assisted Workflows

Publications & Honors

First Sight. Award winning short film that used Wist for VFX. 2024

LGBTQ+ VR Museum. Optimized photogrammetry. Tribeca winner. 2021

XD Immersive. Invited presentation on 3D, spatial product design. 2018

Wall Street Journal. Featured for graduate research regarding haptics and morality in VR. 2016

Book of What If...? Active curiosity for kids 8-12. Simon & Schuster. 2016