

Emily Van Belleghem

//Culver City, CA 90232
//(408) 859-5845
//emilyvanb@alum.mit.edu
//www.emvanb.com

WORK EXPERIENCE

Walt Disney Imagineering | Glendale, CA

Oct 2021 - Present

WDI Technology Studio – Lead AR/VR Experience Design Engineer

- Partnering with various departments and studios across The Walt Disney Company to establish a Technology Studio Design Department in collaboration with Tech and Digital and Disney Media and Entertainment Distribution
- Defining departmental resource needs to ensure production in budget while also employing new UX design guidelines
- Design Lead for virtual production technology, game engineering applications, and animatronics pipeline software.
- Product Owner for multiple inhouse products including immersive attraction pre-visualization software and Human Machine Interface Design Guide with associated API libraries for attraction operation and maintenance
- Conducting user research to define user base and scope of robotic audio-animatronic data storage software. Designing end to end user flow; incorporating features for version control, searchability for related figures and offline accessibility within construction sites
- Spearheading initiatives for studio wide Design education including consulting for extra projects and counseling individuals

Magnopus | Los Angeles, CA

Feb 2018-Mar 2020

Lead AR/VR Experience Design Engineer, Lead Design of Oculus Quest Demo App Elixir – 1.3 Million Unique Users

- Directed story driven end to end design of VR application demonstrating Quest's hand tracking technology, released at OC6 and presented in Keynote and social media channels by Mark Zuckerberg.
- Authored and implemented storytelling devices to seamlessly incorporate hand tracking tutorial into a first of its kind VR app.
- Envisioned and implemented novel UX mechanics and interactions as well as game logic in C# with Unity.
- Led team of 30+ engineers, producers, artists, and designers, to complete projects with tight deadlines on time and within budget
- Designed and prototyped AR and VR experiences for Magic Leap, Microsoft Hololens, Quest, mobile, and unreleased hardware
- Drove vision and instantiation of studio wide Design Department including pitching design needs to executive suite, crafting definition of responsibilities as well as guiding principles for operation, and creating definition for job descriptions

NOTABLE PROJECTS

Madison Beer Immersive Reality Virtual Concert -- Sony Immersive Music Studios

Reported directly to the Head of Sony Immersive Music Studios to lead user experience ideation and technical port over of full concert experience across multiple software and hardware platforms. Designed, prototyped in UE4, and presented novel interactions and game mechanics for immersive music experiences to entire studio.

Immersive Performance Capture Through Virtual Reality -- Walt Disney Animation Studios

Programmed custom real-time markerless motion capture VR app in C# with Unity for immersive previsualization of feature films. Presented final results to WDAS and PIXAR executive creative and technical teams, including President and CTO.

Project Sidekick -- NASA Jet Propulsion Laboratory, Human Interfaces Group

Ran user tests, designed, and coded controls for holographic interfaces launched for use on the International Space Station. Responded to feedback from US astronauts and zero gravity testing to create an intuitive Microsoft Hololens app utilizing hand tracking, voice commands, sub-millimeter accurate holographic overlays, and smart AI assistant of own ideation and design.

Funnel Vision -- MIT Media Lab, Object-Based Media Group

Patent Publication: Methods and Apparatus for Radial Automultiscopic Display; Awarded 12.1.2020

Invented and fabricated novel display for 3D automultiscopic light fields, optimizing for accessibility of device manufacturing. Conducted research to custom render pixels for a new form of parallax barrier and lenticular array.

EXTRACURRICULAR ACTIVITIES

She Is the Music: Connect TogetHER: Concept and Prototype of BeatStream – Finalist

July 2021

Microsoft Women in AR and AI Hackathon: Team Lead of Thought Space – First Place Award

Dec 2018

MIT Reality Virtually Hackathon: Team Lead of Pitch Paint – recipient of three awards including Audience Choice Award

Oct 2016

EDUCATION

University of Southern California (USC) | Los Angeles, CA

On Leave

PhD Candidate, School of Cinematic Arts; Media Arts + Practice

Massachusetts Institute of Technology (MIT) | Cambridge, MA

Master of Engineering in Electrical Engineering and Computer Science

Bachelor of Science in Electrical Engineering and Computer Science

Relevant Coursework: Computer Graphics, Fundamentals of Computational Media Design, Research in Media Arts and Sciences