

Paul Merritt

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Work Experience

AR Development Support Specialist

NIST - New York, NY

July 2024 - Present

- Developed PLYColorParser, a Python/C# (Unity) tool that extracts and clusters colors from PLY/image files using silhouette-optimized k-means, returning dominant and WCAG-contrast-safe colors for UI design.
- Upgraded ARTV to Quest 3 with new GUIs and point cloud models.
- Built XRDM, a WebXR A-Frame experience embedded in Qualtrics to collect decision-making metrics in survey studies.
- Presented at FedCASIC 2025 on using WebXR to enhance remote research studies, showcasing our XRDM platform for immersive data collection within survey environments.

Technical Artist

Meta - New York, NY

October 2022 - April 2024

- Co-developed a variety of projects for Meta, contracted through Insight Global. Project details, purpose, and technologies are bound by NDA.
- Collaborated on AR filters and Snap lenses.
- Implemented features at request of project managers, analyzed and optimized software performance, and pitched solutions to UX concerns.
- Regularly participated in on-call rotation 3 days at a time.

Freelance AR Developer

Bolder Games - Remote

August, 2022 - September 2022

- Worked on a small team of developers operating in a SCRUM workflow on an Augmented Reality project. This project was for The Walt Disney Company, contracted through Bolder Games. Project details, purpose and technologies are bound by NDA.

AR Developer

September, 2018 - October, 2022

NIST - Boulder, CO

- Developed ARTV (Augmented Reality Tracking Visualization) which displays real-time tracking on 3D point clouds.
- Designed and co-designed several WebXR prototypes that stream IoT data via MQTT to an A-Frame scene display.
- Co-facilitated the CHARIoT Challenge, bridging IoT and AR industries towards improving a First Responder's performance.
- Used C# and Unity to build Augmented Reality (AR) programs for The National Institute of Standards and Technology's (NIST) Public Safety Communications Research Division (PSCR).
- Created and demoing POC-level training simulations for the Microsoft HoloLens and Magic Leap One.
- Produced scenarios for the Vuzix Blade and iOS/Android to showcase the potential of AR in a variety of form factors.
- Constructed 3D models and their animations for the iOS/Android app.
- Worked alongside local and distant Fire Fighters and Bomb Disposal experts to isolate key needs in their fields.
- Demonstrated at CES 2019 and 2020, at our Public Safety Stakeholders Conference, and at our facilities in Boulder.

Software Development Intern

May, 2017 - August, 2017

City of Los Angeles ITA - Los Angeles, CA

- Used C# and Unity to build an AR app for the Information Technology Agency (ITA) for a project for the Los Angeles City Fire Department.
- Constructed 3D models and their animations for the program.
- Worked closely with the engineers at DAQRI during development.
- Collaborated with the City of Los Angeles QA team on testing plans.

Summary

Paul Merritt graduated NYU in 2018 and began working at NIST in the PSCR division. He has completed several projects in Augmented Reality as part of the UI/UX portfolio. They're simulations intended for firefighters, bomb squads, and police officers: for the Microsoft HoloLens, the Magic Leap One, the Vuzix Blade, and WebXR. He co-led and judged the CHARIoT Challenge, bringing together industry and academia to create innovations in HUDs. After, he completed a AR freelance contract with Bolder Games for The Walt Disney Company. He went on to work as a Technical Artist at Meta for 2 years before returning to NIST PSCR to continue supporting first responders through advancements in XR technology.

Skills

Languages & Tech Stacks

TypeScript	Java
React Native	C++
A-Frame	C
AR.js	JavaScript
p5.js	Node.js
ML5.js	HTML5
C#	CSS
	Python

Environments

Microsoft Azure AI	MS Office
Meta Spark Studio	Adobe Premiere
Unity	Adobe Photoshop
Maya	Audacity
Git	OBS
MQTT	Unreal Engine
AWS	

Platforms

Meta Quest 3	iOS
Microsoft HoloLens	Android
MagicLeap One	Web
Vuzix Blade	

Certifications

Azure AI Engineer Associate

May, 2025

Education

New York University, New York, NY

May, 2018

Bachelor's Degree: Computer Science

Minor: Game Engineering