

Paul Merritt

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Skills

Computer Programming: A-Frame, AR.js, p5.js, ML5.js, C#, Java, C++, C, JavaScript, Node.js, HTML5/CSS, Python, Processing

Computer Skills: Unity, Maya, Git, MQTT, MS Office, Adobe Premiere Pro, Adobe Photoshop, Audacity, OBS

Languages: Conversational Spanish

Work Experience

NIST, Boulder, CO **Augmented Reality Developer** **September, 2018-Present**

- Co-developed ARTV (Augmented Reality Tracking Visualization) which displays real-time tracking on 3D point clouds.
- Developed and co-developed 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 job.
- Using 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).
- Creating and demoing POC-level training simulations for the Microsoft HoloLens and Magic Leap One.
- Creating scenarios for the Vuzix Blade and iOS/Android to showcase the potential of AR in a variety of form factors.
- Constructing 3D models and their animations for the program.
- Working with local and distant Fire Fighters and Bomb Disposal experts.
- Presented demonstrations to attendees at CES 2019 and 2020, attendees at our Public Safety Stakeholders Conference, and visitors to our facilities in Boulder.

City of Los Angeles ITA, Los Angeles, CA **Software Development Intern** **May-August, 2017**

- Used C# and Unity to build an Augmented Reality (AR) program for the Information Technology Agency (ITA) as part of 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, the AR headset company, during development.
- Collaborated with the City of Los Angeles QA team on testing plans.
- Presented demonstration to senior staff in the office of the Mayor of Los Angeles.

ReviewInc, Woodland Hills, CA **Software Development Intern** **June-July, 2015**

- Wrote several programs critical to the startup's business workflow using C# in ASP.Net in Visual Studio 2013.
- Created Excel spreadsheet (.xls, .xlsx, and .csv formats) uploader for batch imports of client companies' data.
- Developed program to collect spam or blacklisted email addresses and prevent their future use.
- Collaborated on UI functionality development and appearance improvements.
- Made unit tests for automated testing of the programs.

Education

New York University, New York, NY **May, 2018**

Bachelor's Degree: Computer Science; **Minor:** Game Engineering

Programming Projects

Java to C++ Transpiler (Java, XTC, SBT) **September-December, 2016**

Group project implementation of a Java 7 to C++ transpiler for the Object-Oriented Programming (OOP) class.

Written in Java using XTC libraries and SBT as a builder.

- Input: Java 7 source code with inheritance and virtual methods.
- Output: C++ source code without inheritance.
- Generate AST from Java source file, visit and mutate AST for C++ header, implementation, and main files.