

VICTOR LALO

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EDUCATION

Northwestern University

Evanston, IL | 2013-2017

B.S. - Electrical Engineering
Minor - Music Technology

SKILLS

 Python

 C#

 C++

 Unity Engine

 Unreal Engine

 Wwise



Tooling



Automation



System Design



Signal Processing

CERTIFICATES

University of Colorado

C++ Programming for
Unreal Engine Development
2022

C# Programming for
Unity Engine Development
2020

Kadenze

Advanced Audio Plugin
Development
2022

WORK EXPERIENCE

Dolby Laboratories

Software Engineer

San Francisco, CA | 2021 - Present

- Created **internal automated software tools** to increase accuracy and efficiency of product validation. Tools include **signal analysis** scripts, file **parsing** into data structures, and **graphical interfaces** for interaction with Dolby encoding and decoding products.
- Aided in **automated error detection** algorithms for the Dolby Atmos Live Panner application, used to integrate Dolby Atmos music into live concert venues. The tools allow for comparison between samples of audio and metadata, **aligning offsets**, **sample interpolation and noise filtering**.
- Lead the test planning and test development of **Dolby Atmos** development kit releases. The kits are sent to partner vendors to be integrated into gaming and music streaming products. Partners include **Xbox and Windows, Apple Music and Mac OS Audio**.

Playstation

Software Engineer in Test

San Mateo, CA | 2020 - 2021

- Utilized **internal console backend** to create applications that communicate with **Playstation products**. Incorporated **internal tools** that allow for audio recording, playback, menu navigation, screen recording, and image analysis.
- Collaborated on a suite of **automated testing tools** to speed up testing and verification of Playstation **console peripherals** (headphones, controllers, headsets).
- Created **graphical interfaces** that allow engineers to interface with Playstation products on Windows and Mac Operating Systems. Interfaces can interpret incoming **serial data** and convert to a human-readable format.

BeBop Sensors

R&D Engineer

Berkeley, CA | 2018 - 2020

- Developed VR debugging and interfacing tools in the **Unity and Unreal game engines** that give developers the ability to use BeBop's XR Gloves within the engines.
- Worked with external parties to integrate hardware components into **BeBop's XR Gloves**, expanding spatial tracking and interactive utility of the product.
- Lead the design and implementation of a **test automation system** for product validation, converting manual work into efficient and automated test procedures. The test suite includes the development of **robotic operation, firmware communication, data analysis, and graphical interfacing**.

Northwestern Audio Laboratory

Research Assistant

Evanston, IL | 2016

- Aided in the research of a **machine learning system** that analyzes music and divides the songs into repeatable patterns, then **extracts and isolates instrumental sources** such as vocals, drums, or lead guitar.
- Spearheaded the development of a **musical glove controller** that interfaces with Digital Audio Workstations, elevating the performance of electronic music.