Ian Vidal

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EXPERIENCE

Software Engineer
4G Clinical | October 2024 – Present, Wellesley MA
- Implement technical configuration of clinical trials with an average turnaround time of 3 hours
- Develop custom logic code in Python for randomization and supply distribution
- Lead development of web services and API integrations

Software Engineer
e3 Consulting | March 2024 – September 2024, Santurce PR
- Created daily report bot with Automation Anywhere and Python, reducing labor from 3 hours to 5 minutes
- Built help-desk chat-bot using Python, Chatterbot, and NLTK reducing manual support tickets by 30%
- Built back-end features for scheduling web-app in PHP and Laravel, enabling MVP deployment

Software Engineering Intern
Delsys | January 2022 - May 2022, Natick MA
- Built a remote framework for EMG sensor access in C# to speed up testing from 3-4 hours to a few seconds
- Created a series of bat script utilities for remote file transfer and program control
- Fixed sensor testing software after company changed API, bringing compliance from 70% to 100%

PROJECTS

BitDelay Audio Plugin
https://github.com/vidaliATWIT/BitDelay • February 2024

- Built a characterful audio delay VST3 plugin for MacOS and Windows using C++ and JUCE
- Implemented per-sample signal processing algorithms for delay-dependent decimation and bit-reduction
- Leveraged separate audio buffers to create dry/wet control with a fully bypassed 0ms dry signal

MPK249 Midi Control Script for Ableton Live
https://github.com/vidaliATWIT/MPK249-Midi-Control-Script • November 2023

- Created a dynamic control script for the Akai MPK249 MIDI controller using Python
- Added dynamic mapping of encoders and faders by leveraging Ableton's Controller API
- Implemented clip-launching, muting, and soloing on the 16x16 pad grid

Compugene Audio Looper
https://github.com/vidaliATWIT/AudioTools/ • January 2023 - April 2023

- Programmed Powershell scripts for recording, editing, and looping audio in Python at 16bit 48kHz in WAV and mp3 format
- Implemented a .exe callback system to incorporate a Portaudio program reducing development time by 4 weeks
- Designed project using pipe-filter architecture and OOP paradigm to facilitate scalability

EDUCATION

Bachelor of Science in Computer Science, summa cum laude
Wentworth Institute of Technology • Boston, MA • 2023 • 3.95/4.00 GPA

SKILLS

PROGRAMMING LANGUAGES: C/C++, C#, Python, Matlab, Java, Javascript, Go, F#, Rust, and Lua
LIBRARIES: JUCE, Portaudio, .NET, SDL2, Flask, NumPy, Pandas, CoreAudio, and ASIO
TOOLS: Max/MSP, PureData, git, and CSound
LANGUAGES: Fluent in Spanish

MUSICAL PROJECTS & PORTFOLIO

BANDCAMP: https://experimentalcolourtransmission.bandcamp.com/
WEBSITE: https://ministryoflies.xyz/
PORTFOLIO: https://ian-v-portfolio.web.app/