

Curriculum Vitae for Gabriel J. Lewis

Objective: Seeking a challenging programming position where; my skills in Python, Arduino, and App development can be utilized to create innovative solutions, and to turn all of my proficiencies into certifications.

Education:

Waxahachie Global High (STEM / Early College High School): High School Diploma.

University Of Texas at Tyler / Navarro College: Associates Degree Science.

Expected Graduation for both: May, 2024

Proficient In:

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|---------------------|----------------|--|
| ■ Python | ■ Windows OS | ■ Cloud computing platforms such as Oracle Cloud |
| ■ C++ | ■ Linux | ■ Network setup / diagnostics |
| ■ Fusion 360 | ■ MAC OS | ■ Soldering / Micro Soldering / Reflow |
| ■ SolidWorks | ■ Arduino | ■ Breadboard / circuit design and troubleshoot |
| ■ Autodesk Inventor | ■ Raspberry Pi | ■ Computer upgrades / repair (hardware and software) |
| ■ Onshape | ■ 3D printing | |

Certifications: Microsoft Excel.

Projects:

- Re-designed code for an Apple app to control a Loop - a device used to take information from a CGM (Continuous Glucose Monitor), which intern controls the settings in an Omnipod insulin pump so that the user doesnt have to constantly check and adjust insulin levels. This was done so that a friend with type two diabetes could have a better quality of life.
- 6-Axis drone: design, build, and program using an Arduino, carbon fiber, and 3D printed parts.
- Retro-style Arcade Game: Designed and developed a 2D arcade game using Python and Pygame, including creating the game mechanics, collision detection, graphics, and sound effects.
- Chromecast Audio with Sonar Tripwire: Built a device that uses ultrasonic sensors to detect movement and sends an audio signal to Chromecast, programmed using Python and Raspberry Pi.
- Binary-PS/2 Keyboard: Created a keyboard using an Arduino and eight push-buttons to convert a binary input to a PS/2 signal with an 8x8 matrix display with animations.
- Clicker Game: Developed a block-coded clicker game using MIT's App Inventor, designed the game mechanics and user interface.
- Bluetooth Heart Rate Variation Monitor: Built a device that measures heart rate variations, and calculates stress. This information is then sent to a mobile app via bluetooth.
- 3D Design and print / laser jobs (using Fusion 360, SolidWorks, Inventor, and Onshape):
 - ◆ Carburetor gaskets for 79 Ferrari 308 GTS
 - ◆ Proteus pool vacuum main drive gear and drive bushing
 - ◆ Jacuzzi tub overflow cover
 - ◆ Honda motorbike choke lever / bracket
- Motorcycle builds:
 - ◆ Motorized a mountain bike with a single cylinder 2-stroke motor. Then re-built the engine with a high compression piston, new jug, high compression head, and nitrous oxide injection.
 - ◆ 1980 Honda CB125S trail bike: Rebuilt after being in storage for 30 years. Is now a daily rider.
 - ◆ 1982 Honda V45 Sabre 750: After being dismantled with a ceased engine, I rebuilt the engine, fuel system, wiring harness. brake system, and 3-D printing broken and unavailable parts.
- PXE Server: Designed and configured a PXE (Preboot Execution Environment) server for network booting and imaging of old computers that do not support USB booting.

References:

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| ■ Jason Bobo
Capt. Texas Rangers (Company F)
Family friend
972-935-2829 | ■ Jimmy Brown
Owner Redline Emergency Solutions
Provide ongoing network troubleshooting / IT / computer
maintenance & repair
469-951-9970 |
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Gabriel J. Lewis

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