Ghassan Younes
BSCE

ghassan@ghassanyounes.com | *www.ghassanyounes.tech* | +1 (425) 529-6730 | */in/ghassanyounes*

Skills

Languages & APIs

C/C++	C#	Java
Zsh	Bash	LaTeX
Rust	Swift	Perl
Matlab		Python
HTML		CSS
JavaScript		Node.js
PHP		JQuery
Vulkan		OpenGL

amd64/Arm Assembly
SystemVerilog
Embedded C/C++

Protocols

LTSpice
USB / USB-HID

DHCP	DNS
HTTP(S)	(S)FTP
UART	ZigBee

I^2C | SPI | CAN

Operating Systems

Linux	BSD
Windows	macOS

Real-Time Operating Systems

Equipment

Oscilloscopes
PCB Mills
Board Bringup
3D Printing
Logic Analyzers
Circuit Testing Equipment

CAD and Modeling Software

EagleCAD	KiCAD
Fusion360	FreeCAD

Knowledge Base

Control Systems
Digital Signal Processing
Algorithms
Git & SVN Source Control
Bare-Metal Programming
Microcontroller Firmware

Soft Skills

Teamwork
Task Delegation
Problem-solving
Cultural Intelligence

Professional Experience

Teaching Assistant, CS 100 - DigiPen Institute of Technology .... June 2020 - Present
- Assembled and tested lab kits involving the TIVA-C 123 microcontroller to send to incoming students
- Programmed and tested assignments/exams in ARM Assembly to interface with the TM4C123 launchpad development board from Texas Instruments
- Constructed and tested simple circuits involving switches and relays
- Collaborated with professors to assemble kits on time

Computer Engineering Lab Assistant - DigiPen Institute of Technology .... August 2020 - Present
- Maintained cleanliness and organization of the Engineering labs
- Restructured and optimized organization of the labs to ensure optimal ergonomic access and accessibility
- Familiarized myself with part-ordering process to ensure constant stock of consumable parts

Tutor in Math, Physics, Computer Science, and Engineering - DigiPen Institute of Technology .... August 2020 - Present
- Assisted students in understanding core concepts from courses I had previously taken
- Encouraged students to ask for help and approach problems in new ways

Academic Projects

DART: Dubatron Autonomous Remote Tank - Lead Engineer .... January 2022 - July 2022
Goal: Modify the previous year's custom controller with a 'tank' (a small tread-based vehicle) to control it wirelessly with the gyroscope. The tank will override user control to avoid collisions by using infrared and ultrasonic sensors.

Custom Video Game Controller - Lead Engineer .... August 2020 - May 2021
Goal: Create a new and unique experience for playing a 2D-platformer game, and then expand capabilities to work as a generic controller, involves design and population of a PCB and chassis CAD model

High-Altitude Solar Array - Hardware Engineer .... January 2020 - May 2020
Goal: Design and build a device with size and weight constraints for use in a high-altitude (35km) balloon using a PIC-8 Microntroller to read in values from a custom voltmeter and ammeter using ADC, and a cricketsat 555 circuit paired with an antenna to transmit data to the ground station

Education

Bachelor of Science in Computer Engineering - DigiPen Institute of Technology .... Expected May 2023
Redmond WA, USA.
ABET/EAC Accredited program.