

Ebrahim Karam

Software Control Engineer

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WORK EXPERIENCE

Third Coast Automation

Nashville, TN, USA

Software Control Engineer

Jul 2024 – Oct 2024

Helped build a Fuel system for the American Embassy in south Sudan using a WAGO PLC in structured text and Ladder Logic

Designed an HMI system using the HMI tools from CodeSys

Wrote a verification document for the system that was built

Animax Designs, Neon Global

Nashville, TN, USA

Software Engineer

Jul 2022 – Jul 2024

Helped with installations of animatronics and interactives all over the world

Created HMIs/GUIs in C# and Perspective Ignition to control and Maintain attractions and animatronics

Created Scripts and subroutines to improve workflow and documented procedures.

Developed code in Structured Text on Beckhoff PLCs to control figures and integrate them with Show Control Systems

National High School Game Academy, Carnegie Mellon University

Pittsburgh, PA, USA

Unity Developer & Advanced Programming Topics Teaching Assistant

Jun 2021 – Aug 2021

Helped create a curriculum to be taught to students

Gave students tech Support in Unity, C#, and Perforce

Delivered feedback on their work and personal game designs

AUB Aerosol Lab, American University of Beirut

Beirut, Lebanon

Research Engineer

Jun 2021 – Aug 2021

Developed and built instruments that measure users' puffing behavior

Built and developed an "Exposure Apparatus" to expose mice to water pipe smoke using C and Arduino

Created a data retrieval program for our air pollution monitor using Python and did some preliminary data analysis using pandas and Numpy

EDUCATION

Carnegie Mellon University, Entertainment Technology Center (ETC)

Pittsburgh, PA

Master of Entertainment Technology

May 2022

American University of Beirut (AUB)

Beirut, Lebanon

BE in Electrical and Computer Engineering

Sep 2013 – Sep 2017

Minor In Mathematics and Biomedical Engineering

SKILLS

Programs & Tools: MATLAB, MATHEMATICA, SOURCE TREE, GIT, Microsoft Office, Unity, Reaper, VMWare, Beckhoff TwinCAT, Codesys

Programming Languages: C++, C#, PYTHON, HTML5, CSS3, L^AT_EX, STRUCTURED TEXT, POWERSHELL, C

Languages: English: Native Language, Arabic: Fluent (speaking, reading, writing), French: Intermediate (reading), basic (speaking, writing)

PERSONAL PROJECTS

Click-able

The A* Team as part of *Project Ignite*:

Spring 2022

Advised a team of high school students on building an interactive portrait using Unity C# & python

ACADEMIC PROJECTS

Click-able

Team EyeDeal

Fall 2021

Provided analytics to the researchers from the game in C# with Unity

Worked on gamer feedback such as camera shake, audible meteor detection, and others

Team Help A peer

Spring 2021

Created an Augmentation of Zoom via WPF and C# to give more tools for the teacher in the classroom.

AWARDS & SCHOLARSHIPS

Best overall in makeathon Rethink the Rink (Purple Team)

Mar 2022

Recipient of the Electronics Art Diversity and Inclusion Award

Academic Year 2021-2022

1st Prize in the BDD Intern Competition for Sustainable Development (BDD Bus)

Aug 2017

1st Prize in the Beirut StartUp Weekend by TechStars (AI Advisor Team)

Oct 2017