Nusair Islam

Electrical Engineering Student

815 W 46th Ave, Vancouver, BC, V5Z 2R4 | 403-805-6689 | nusair11@gmail.com | https://www.linkedin.com/in/nusair-islam/

Skills

Programming Languages: Python, C#, JavaScript, C, C++, HTML/CSS, Bash, ARM assembly, 8051 assembly, Verilog, SystemVerilog, TCL, MATLAB, XML

Frameworks/Libraries and Databases: JQuery, React, MongoDB, Mongoose, MySQL, Node.JS, EJS, TensorFlow, Apache Spark, PySpark, Threading

Tools and Platforms: Git, Linux/Unix, Amazon Web Services, GrabCAD, Visual Studio, Unity, MS Office, Heroku

Education

UNIVERSITY OF BRITISH COLUMBIA Anticipated April 2023

Bachelor's Degree of Applied Science,
Major in Electrical Engineering
Minor in Physics

Certifications

THE COMPLETE 2022 WEB DEVELOPMENT BOOTCAMP NOV 1, 2021

Udemy

- **Certificate number:** 0da8ce1d-cd19-4510-be45-5d906dbef694
- **Certificate URL**: https://www.udemy.com/certificate/UC-0da8ce1d-cd19-4510-be45-5d906dbef694/
- **Relevant skills learned**: HTML/CSS, DOM, JavaScript, jQuery, Node.JS, Express.JS, EJS, SQL, MongoDB, Mongoose, Heroku, RESTful APIs, Authentication, React.JS

Work Experience

ANSYS SEPT 2021 - PRESENT

Electronics Research and Development - 3D GUI at Ansys

- Implemented compatability with latest MATLAB/Simulink version and desktop software using C++
- Modeled four complicated 2D/3D toroid structures on CAD and ran eddy current analysis using defined excitations and calculated resultant torque
- Eliminated 95% of build warnings and errors in Maxwell EDT Software in C++

INTEL CORPORATION JAN 2021 – AUG 2021

ASIC Power Efficiency Engineer – Non-Volatile Solution Group

- Created and trained a TensorFlow dense neural network regression model to calculate data leakage power with over 75% accuracy given cell counts and areas as inputs
- Utilized Apache's PySpark Machine Learning to create and train a linear regression model pipeline that calculates leakage power given cell counts and areas as inputs with over 70% accuracy
- Debugged SV module using Ansys PowerArtist to reduce number of unknown nets from 100,000+ to ~1000
- Solved critical timing errors preventing compilation on over 1000 pins of SystemVerilog PMC model

UNIVERSITY OF BRITISH COLUMBIA SEPT 2020 – APRIL 2021

APSC 160 – Introduction to Programming in C, Teaching Assistant

- Ran office hours and mentored over 100 students on the basic principles of programming and software engineering in C

- Created presentations for over 200 students on topics such as stack memory theory, variable memory allocation, heap and stack memory, binary trees, sorting, data structures, and runtime optimization in C

ROCSOL TECHNOLOGIES INC. MAY 2020 – SEPT 2020

Junior Software Intern

- Created integral application in C# to utilize user inpt data and generate a dynamic diagram showcasing the output of the program in a visualize manner
- Created animation in C# to read output data from DWOB software and generate a dynamic animation showcasing the path of the drill bit inside the wall and the rock fracture points
- Debugged over 100 critical build errors in DWOB software

Technical Projects

AI PERSONAL ASSISTANT NOV 2020 – PRESENT

- **Programming language:** Python
- **Libraries:** TensorFlow, Spark, Numpy, Pandas, OpenCV
- Utilized Apache's PySpark API to build and train a logistic regression pipeline model that assigns states to voice command inputs with over 80% accuracy.
- Created and trained a TensorFlow model with OpenCV to create a facial detection pipeline that detected user's faces with over 70% accuracy.

UNITY GAME DEVELOPMENT JULY 2020 – PRESENT

- **Programming language:** C#
- **Libraries:** Unity libraries, Threading
- Created battle controller that tracked over 100 active objects and updated the state of the game when an object made an action
- Utilized Threading library to create multi-threading system that dynamically renders multiple shapes for a stage and cuts run time by 30% compared to single-threading