Matthew Das

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Education

Ontario Tech University, Oshawa, Ontario Bachelor of Engineering, Electrical Engineering

Relevant Courses

- Differential Equations for Engineers (Matlab)
- Introduction to Programming for Engineers, Object Oriented Programming and Design (C++)
- Electrical Engineering Fundamentals, Digital Systems Circuit Design and Analysis
- Microprocessors and Computer Architecture CPUlator Computer System Simulator (Nios II, ARMv7, and MIPS)
- Computer Networks (Cisco), Data Structures (Java)

SATEC @ W.A. Porter Collegiate Institute

- Computer Science (C++, Python, C#, Unity, Visual Basic)
- CCNA Routing and Switching (CCNA 1, 2, 3, and 4)
- Computer Engineering (Assembly, C++, C)

Highlights of Qualifications

Engineering Hard Skills: C/C++/C#, Python, Visual Basic, Java, Assembly (Nios II, ARMv7, and MIPS), Electrical circuits and analysis, and Knowledgeable in the system level modeling and tuning of circuits.

Soft Skills: Adaptable, attentive, communication, collaborative, creative, independent, leadership, organized, tenacious, time management

Work Experience

2001 Audio Video, Toronto, Ontario

Electronic Salesman

- Engage with people on a daily basis.
- Knowledge on many different types of electronics
 - Televisions (Samsung, LG), Headphones (Sennheiser, Klipsch, PSB, Technics), Amplifiers (Denon, Yamaha, Onkyo), etc
- Examining electronics to find defects

Toronto Computer, Toronto, Ontario

Electronics Salesman and Repairman

- Communicated with people on a daily basis.
- Installed computers and laptops, software, and hardware.
- Familiarized with many electronics (ex. Laptops, computers, phones)
- Evaluated and repaired physical and software-based damages on cellular devices

June 2020

August 2019

Present

Expected April 2025

Projects

Virtual Machines Communication Environment Project

Set up Virtual Machines and a Virtual Network Environment. After setting these up, we installed Wireshark, built a TCP server, built a file download application based on TCP and then lastly, we built a UDP.

Car Unity Game

Using the software Unity for building the environment. Utilized C++ to create an AI vehicle to go through the track with AI waypoints. The player vehicle utilized basic C++ code to go down the track, by using code to move the camera left, right, straight, and reverse; combining the camera and car together and following the control given to the code.

Arduino Vending Machine

Constructed a Vending Machine in a group of 4. The vending machine can dispense one of 4 items using a keypad, 4 motors, and a LCD display.

Personal Computer

Purchased, and built a computer after extensive research.

F1 Model Car

In a group of 6, we have to design and manufacture a miniature car out of the official F1 Model Block using CAD/CAM design tools. The cars are powered by CO₂ cartridges and are attached to a track by a nylon wire.

Alloy Car Rim Model

Designed a generic car rim, modeled and designed via SolidWorks

Temperature Sensor

Built a sensor that can measure the temperature, built using parts from an Arduino kit.

Car Piston Head Model

Designed a generic car piston head, modeled and designed via NX

Autonomous Rickshaw

Collaborated, built and modeled a rickshaw that is able to go forward by itself, modeled and designed via SolidWorks, built using Meccano Parts