

Murtadha Saeed Nisyif

Computer Engineering Graduate

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Education

University of Guelph

Bachelor of Engineering: Major in Computer Engineering, Minor in Computer Science

Sep 2019 – May 2023

Guelph, Ontario

Skills

Languages: C/C++/C#, Python, JavaScript, Java, HTML, MATLAB, VHDL, CSS
Frameworks: Node.js, React.js, Express.js, NumPy, ROS(1 & 2), Pandas, Tensorflow, Django, FreeRTOS
Tools: Git, Docker, GCC, CMake, Xilinx, Quartus IV, Cadence Virtuoso
Databases: MongoDB, MySQL, SQLite

Work Experience

Research Assistant - Software developer

Oct 2022 – Present

University of Guelph - Robotics Institute

Guelph, Ontario

- Implemented multi-level data pipeline between depth cameras and FANUC arm for a modular operational system
- Assessed safety procedures incorporated in automation scripts of user-robot based interaction
- Authored ROS2 packages in C++ and Python for robotic arm manipulation with improved accuracy of 20%
- Bridged between ROS1 and ROS2 nodes to support backwards compatibility of existing systems

Information Technology Analyst

Jul 2020 – Oct 2020

Kitchener Downtown Community Health Centre - SRHC

Kitchener, Ontario

- Used excel to manage equipment upgrades with tight budget of \$10,000 and short deadlines
- Devised a scheduling scheme to cut down call waiting times by 30% using existing PBS phone system
- Improved network infrastructure and which resulted in 20% increase in working flow efficiency
- Saved \$5,000 by implementing cost-saving initiatives that addressed long-standing problems

Relevant Projects

Text-to-Braille Real-Time Converter | [python](#), [Git](#), [Eagle](#), [Jira](#)

Apr 2023

- Managed a team of four in developing a novel text-to-braille converter tool that was well-received by the faculty advisor
- Coordinated with a NPO to ensure that the final product met their needs, and well within a cost of \$250 CAD
- Directed critical design decisions when developing the required circuitry, maintaining low manufacturing costs

buildNbox 🌐 | [React](#), [Git](#), [Node JS](#), [Jira](#)

Aug 2022

- Developed a REST api for computer parts data retrieval from Amazon.ca within 0.2 seconds
- Facilitated tools like Jira and Confluence to develop detailed documentations reflecting development progress
- Administered the website traffic and maintained maximum performance during heavy incoming and outgoing traffic

StonkBot 🌐 | [Python](#), [Git](#), [Matplotlib](#)

May 2022

- Forecasted project needs and wants to devise appropriate technologies achieving the teams goal of spending total of \$0
- Integrated Discord Python API to create a discord bot that can run a mockery investing game
- Incorporated financial APIs to retrieve stocks/cryptocurrency prices with real-time price updates
- Built a python API that stores current players information and holdings as a JSON object for easy integration with possible future features

Image Processor | [Python](#), [NumPy](#), [SciPy](#), [Matplotlib](#)

Apr 2022

- Incorporated scientific libraries to perform pixel calculations for Bar-Volumetric chip 128x128 readout picture
- Designed a software model that provides 16x faster performance and is more reliable than the current gold standard
- Ranked first in Engineering & Design 3 in-school competition with a prize of \$2,000 among 50+ other teams

Extracurriculars

Gryphon AeroSpace

May 2021

Software Engineering Executive

First Robotics Competition

Sep 2017, Sep 2018

Builder, Automation programmer

Skills Ontario Competition

May 2018

Builder, Software Developer