

ZEYAD GHULAM

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EDUCATION

University of Guelph Bachelor's Degree Biomedical/Mechanical Engineering (Co-op)	Guelph, Ontario Sep 2018 - May 2023
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WORK EXPERIENCE

University Health Network - Toronto Rehabilitation Institute <i>Research Assistant - Biomedical Engineering</i>	Toronto, ON Jan 2021 - Present
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- Using machine learning algorithms like YOLOv4 and OpenPose to provide real-time pedestrian fall detection in busy crosswalks in different weather conditions
- Conducting a large-scale review of emergency evacuation guidelines and procedures in the built environment for individuals with functional limitations
- Researching assistive devices that aids in making Canada's national parks to become barrier free.

Kitchener Downtown Community Health Centre - SRHC <i>Health Information Technologist</i>	Kitchener, ON July 2020 - Oct 2020
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- Ensured the connectedness of doctors and patients through the TELUS health care infrastructure
- Handled sensitive patient medical records daily using OSCSAR McMaster EMR system

Office of the Provost - University of Guelph <i>Instructional and Technical Support Assistant</i>	Guelph Ontario June 2020 - Sep 2020
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- Assisted professors 1:1 to facilitate a successful transition to online learning during COVID-19
- Created AODA compliant digital resources using Adobe Suite and published to D2L Brightspace

Rehabilitation Robotics Institute - University of Guelph <i>Development of an Assistive Robotic Manipulator</i>	Guelph, ON May 2019 - Jan 2020
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- Modelled key components of a feeding robotic arm responsible to improve elderly quality of life
- Controlled Fanuc F5 robot using the teaching pendant and client/server communication interface
- Extensive use of SolidWorks features including mating, collision detection and 3D drawing
- Optimized the functionality of a BLE Smart Door application using React-Native JS and xCode

TECHNICAL SKILLS

SolidWorks:	Certification for Mechanical Design (Associate)
MatLab:	Fair understanding in DSP and Fourier transform knowledge
Programming Literacy:	Python (Intermediate), JavaScript (Advanced), C (Proficient)

PROJECTS

COVID-19 Face Shield Development *SolidWorks, Ultimaker 3+ Extended*

Designed and prototyped face shields to support front-line workers during COVID-19

FIRST Robotics (Rebel 2702) Stronghold (2016), SteamWorks (2017), PowerUp (2018)
Assembled VEX motors and drivetrain mechanics and conducted final opponent analysis reports

Remote Controlled (RC) Planes Club *Arduino, Anet A8, HobbyKing*

Hosted various workshops for kids between 10-16 years old in 3D printing, wiring circuits and flying sophisticated RC planes equipped with GPS capabilities

ACHIEVEMENTS

Unity in Diversity and Kitchener Youth Action Council Promoted diversity and eased off the transition of newcomers to Canada	Kitchener City Hall Nov 2018
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Nominated for Coop Student of the Year Award Recognized for outstanding performance (S20 Employer Coop Report Enclosed)	Coop Career Services Sep 2020
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