

• Designed and created a wireless mouse using the ARM Cortex STM32F4 board

• PM of a team of six, designed a robot to perform a "Search and Rescue Mission" as seen here

Sharhad Bashar 🐯 🛜			
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Education		Skills*	
University of Waterloo Waterloo, ON Master of Mathematics Computer Science Research focus: AI, Machine Learning and Computer Vision TA: Functional Programming, Introduction to C, Data Structures, and Operating Systems	2019 - Present	Languages: • Python • Java • C	••••o ••••o
McGill University Montreal, QC Bachelor of Engineering Honors Electrical Engineering, Minor: Software Engineering CGPA: 3.6/4.0	2012 - 2017	C#Dart LangHTML/CSS	•••••• •••••
 Experiences Al Engineer Intern, Huawei Ottawa, ON Python Working with wireless data to improve Autonomous driving Created a traffic simulator to simulate travel pattern of thousands of vehicles in a city Worked on the Al for next gen navigation system based on data from thousands of locations 	2021 - Present	MATLABVisual BasicsC++Libraries:	••••• ••••• •••••
 NLP Research Intern, Nuance Communications Montreal, QC Python, TensorFlow Implemented new strategies and models to improve Automatic Speech Recognition 	2020	TensorFlowPyTorchOpenCV	••••• •••• ••••
 Software Developer, Hvr Technologies Toronto, ON Python, Flutter, Dart Lang, SQL One of the chief developers for a brand-new social media browser, as seen here Created the mobile app (beta available here) from scratch using Flutter and Dart Lang 	2019	SciPyScikit-Learn	••••
 Software Developer, NexJ Health Toronto, ON NodeJS, MongoDB, Express Worked on a state-of-the-art health app used by over 10,000 users worldwide Improved user experience by integrating "login with username" option Increased user engagement by designing a user points awards system from scratch Fixed over 100 bugs on the frontend and backend 	2018 - 2019	KerasTheanoPandasMatplotlib	••••• ••••• ••••
 Software Developer, Montrium Montreal, QC C#, Python, Java, SQL Worked on the backend for a new platform for pharmaceutical study and trial management system, used by over 100 pharmaceutical companies world wide Created APIs and primary security functions using .NET Core, C#, and Cosmos GraphDB Led a team of five to fully automate unit and system testing using Selenium on Java and Powershell to reduce software testing phase from days to mere minutes Developed a deep NN using TensorFlow to translate company's solutions to 7 languages 	2017 - 2018	Frameworks: ASP.NET Core Node Angular React Selenium	•••00 •••0 •000 •••00
 Electrical Engineering Student, CNRL Fort Mackay, AB C Programmed and tested PLC for over 10,000 sensors in C, VBA and Powershell 	2016	FlutterDatabase:	••••
 Robotics Engineering Student, St. Joseph's Hospital London, ON C++, Python Worked on the forefront of robotic surgery with the KUKA robot and PLC's using C++ and Python Designed and presented a 3D imaging technique for measuring strain at the 2013 COA Conference 	2013 - 2015	MySQL MongoDB	••• ••
Thesis Projects		Scripting: • Bash	••••
Graduate Semantic Segmentation University of Waterloo Python, PyTorch • Using image level data, approximate class size and saliency detection to improve accuracy of weakly supervised semantic segmentation	2020 - Present	 Git PowerShell	••••
 Network implemented using DenseNet-169, PyTorch and trained on over 12,000 images Undergraduate <i>Image Captioning</i> McGill University Python, TensorFlow Used Convolutional and Recurrent Neural Networks from TensorFlow to generate image captions with text descriptions in less than 5 seconds using Python, MatLab and CUDA 	2016 - 2017	* >= 4 stars -> Advanced == 3 stars -> Intermedi <= 2 stars -> Beginner	ate
Projects		Honors and Awar	dc .
 Applied Machine Learning and Data Optimization Python Programmed several different optimization methods, including Gradient and Coordinate Descents, ALM and ADMM, Graph Clustering, noise reduction and others Created models for pattern recognition, Semantic Segmentation and Object Detection, using neural networks, support vector machines, decision trees and more 	2017 - Present	Master of Mathematics Full Scholarship University of Waterloo	2019 - 2021
 Used PyTorch libraries and CNN for unsupervised single image depth prediction Used Intel RNN and data sets for speech recognition 		Honors List Entrance Scholarship	2014 - 2017 2012 - 2017
 Various Node, React, Angular projects NodeJS, ReactJS, AngularJS, MongoDB Made various API and CRUD apps for user auth, weather app, photo editing and others Used the latest JS tech, as well as MongoDB, Google, YouTube and several other APIs 	2018 - Present	Clifford Knowles Bursary George Duggan Bursary McGill University	2016 2015
Notable undergrad projects Java, C • Designed and created a wireless mouse using the ARM Cortex STM32F4 hoard	2014 - 2016	Deans Award	2015

2013

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