

Harshil Modi

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GitHub github.com/HarshilModi10

- Software & Biomedical Engineering student experienced in many languages using **Unix, Linux & Windows** Platforms
- Strong foundation with **Scripting, Workflow Automation, Testing, Designing & Back-End** Development
- Working knowledge of **Machine Vision, Machine Learning, Neural Networks, & Deep Reinforcement Learning**

Education

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| 2017-09 - 2021-04 | McMaster University <ul style="list-style-type: none">· Bachelor of Software and Biomedical Engineering Co-op; GPA: 3.98/4.0· Courses: Intro to Software Development, Data Structures & Algorithms, principles of programming Java, Discrete Math, and Engineering Math· McMaster University President’s Award, Pollock Family Grant Award, McMaster Dean’s List |
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Experience

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| 2018-05 - 2018-08 | Software Engineering Intern/Summer Student <i>Sunnybrook Health Sciences Centre; Toronto, Canada</i> <ul style="list-style-type: none">· Individually developed software for automatic cell counting and identification using QuPath and Groovy and was awarded a publication in Biology Open Journal· Improved analysis accuracy and efficiency by ~30% and 2 weeks to 3 hours respectively, by developing a cell identification classifier using OpenCV and NLP· developed a Graphic User interface for non-technical team members |
| 2017-11 - Present | Software Developer <i>Chat Automate (startup); Toronto, Canada</i> <ul style="list-style-type: none">· Developed a voice recognition AI chatbot using TensorFlow, NLTK, and TextBlob on python· Designed databases, stored procedure, reports, and data input interface Using SQL servers· Worked on creating the company website using HTML which increased client base by 60% |

Personal Projects

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| 2018 – 12 | Image Recreation with Genetic Algorithm <i>Data and Image Processing Analyst</i> <ul style="list-style-type: none">· Effectively developed an algorithm which can generate identical images from random set of pixels in C· Implemented an exponentially Decaying Adaptive Learning Rate to increase efficiency by 12%· Enforced real-time image stitching using FFMPEG to increase resolution and video quality by 220% |
| 2017- 12 | Bionic Prosthetic Hand <i>Machine Learning Developer & CAD Designer</i> <ul style="list-style-type: none">· Collaborated with a group of 5 to create a 3D printed prosthetic hand on Autodesk inventor and SolidWorks· Developed applications using Rashberry Pi and NLP to successfully achieve +85% performance accuracy· Project selected for Department of Engineering showcase & ranked top 3 against 30 teams |

Skills

- Languages:** Python; C++; C; java; Bash; R; MATLAB; Assembly; Groovy
- Web Development:** Django; NodeJs; ReactJs; .Net; HTML; CSS; C9; AWS;
- Databases and Version Control:** MySQL; SQL; MS SQL; MongoDB; SVN; Git;
- Machine Learning Frameworks:** Tensorflow; Keras; OpenCV; Numpy; SciKit Learn; CNTK;
- Computer Aided Design Software’s :** AutoCAD, Inventor, SolidWorks, Pro/DESKTOP