

# Alexander Hong

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CONTACT	thealexhong@gmail.com Toronto, ON Canada		GitHub: @thealexhong Website: thealexhong.github.com		
EDUCATION	<b>University of Toronto</b> , Toronto, Ontario Master of Applied Science in Engineering (Research in Computer Vision), 2014 - present <ul style="list-style-type: none"><li>Thesis: Facial Affective Computing: Emotion Recognition in Human-Robot Interactions</li></ul> B.A.Sc. in Engineering Science (Aerospace), June 2014 <ul style="list-style-type: none"><li>Thesis: Multi-Robot Machine Learning in Urban Search &amp; Rescue</li><li>Relevant Courses: Algorithms &amp; Data Structures, Database Systems, Artificial Intelligence, Computer Vision, Machine Learning, Scientific Computing, Robotics</li></ul>				
RELEVANT EXPERIENCE	<b>Epson Canada</b> , Markham, Ontario Computer Vision Software Engineer Intern, <i>R&amp;D</i> <b>May 2012 - Aug 2013</b> <ul style="list-style-type: none"><li>Analyzed cascade object detection and keypoint matching algorithms in MATLAB to be used in adaptive robotics, improving algorithm pipeline's performance by &gt; 30%</li><li>Developed evaluation software tools in C++ for machine vision algorithm solutions analysis, providing effective feedback of algorithm's performance to research team</li><li>Built frameworks for automating both code-driven and GUI software testing, reducing testing process time by 75%</li></ul> <b>MDA Corporation</b> , Brampton, Ontario Autonomy & Controls Lead, <i>Space Systems Design</i> <b>Sept 2013 - Dec 2013</b> <ul style="list-style-type: none"><li>Designed a space system for orbital debris removal using top-down design methodology, leading to rigorous system design reviews</li><li>Led team in addressing the command &amp; control aspects of the design, creating control systems and software architectures in accordance to stakeholders' requirements</li></ul> <b>Univesity of Toronto</b> , Toronto, Ontario Flight Simulation Research Intern <b>Summer 2011, Winter 2014</b> <ul style="list-style-type: none"><li>Improved upset recovery training for pilots by implementing stall-warning and stall-recognition software onto flight simulator</li><li>Increased RC aircraft maximum flight speed from 15 m/s to 17 m/s, by developing software tools for optimizing aerodynamic, structural, and propulsive performances</li></ul> Holography Research Intern <b>Summer 2010</b> <ul style="list-style-type: none"><li>Created software for optimizing brightness of full colour digital holograms, increasing brightness in final product by 10%</li></ul> <i>Autonomous Robotics Design Competition</i> <b>Winter 2011</b> <ul style="list-style-type: none"><li>Designed successful autonomous robot to deploy traffic-cones onto roads with unsafe conditions</li><li>Led team in programming MCU logic, and designing sensor circuits, ranking top 5 in contest</li></ul>				
TECHNICAL SKILLS	C/C++ (expert) Python HTML(5)/CSS Scripting	Java (expert) Ruby Javascript Test Automation	MATLAB/Octave Assembly jQuery OOP	Git/SVN *nix/Shell Android UI Design	SQL Windows/batch Prolog L <sup>A</sup> T <sub>E</sub> X
INTERESTS	Dragonboat Racing, Gymnastics, Rock Climbing, Painting, AI, Robots, Startups, App Development				