Alexander Hong

Contact

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RELEVANT EXPERIENCE

Entrepeneur

Product Hacker

Feb 2015 - present

- Co-founded Ticket Warrior and Robot Playtime with 2 partners, leading in software engineering and UI/UX
- Designed, developed, and released cross platform mobile and full-stacked web applications in a fast-paced environment

Epson Canada, Markham, Ontario

Computer Vision Software Engineer Intern, $R \mathcal{B} D$

May 2012 - Aug 2013

- Analyzed cascade object detection and keypoint matching algorithms in MATLAB to be used in adaptive robotics, improving algorithm pipeline's performance by > 30%
- Developed evaluation software tools in C++ for machine vision algorithm solutions analysis, providing effective feedback of algorithm's performance to research team
- Built frameworks for automating both code-driven and GUI software testing, reducing testing process time by 75%

MDA Corporation, Brampton, Ontario

Autonomy & Controls Lead, Space Systems Design

Sept 2013 - Dec 2013

- Designed a space system for orbital debris removal using top-down design methodology, leading to rigorous system design reviews
- Led team in addressing the command & control aspects of the design, creating control systems and software architectures in accordance to stakeholders' requirements

University of Toronto, Toronto, Ontario

Flight Simulation Research Intern

Summer 2011

• Improved upset recovery training for pilots by implementing stall-warning and stall-recognition software onto flight simulator

Autonomous Robotics Design Competition

Winter 2011

- Designed successful autonomous robot to deploy traffic-cones onto roads with unsafe conditions
- Led team in programming MCU logic, and designing sensor circuits, ranking top 5 in contest

TECHNICAL	
Skills	

C/C++/Java	*nix/Shell	MATLAB/Octave	$\mathrm{SQL/NoSQL}$	$\mathrm{Git/SVN}$
Python/Ruby	HTML(5)/CSS	MeteorJS/NodeJS	Parse/mongoDB	React/Angular
Android/iOS	MVC/Flux	OOP Design	Test Automation	UI/UX
Machine Learning	Computer Vision	Optimization	Robotics	Aerospace

EDUCATION

University of Toronto, Toronto, Ontario

M.A.Sc., Autonomous Systems and Biomechatronics Lab	2014 - present
• Thesis: Multi-modal Affect Recognition in Human-Robot Interaction	(Computer Vision)
B.A.Sc. in Engineering Science (Aerospace)	June 2014
• Thesis: Multi-Robot Cooperation in Urban Search & Rescue	(Machine Learning)

Interests

Startups, Technology, Dragonboat Racing, Gymnastics, Rock Climbing, Painting, Hackathons