

Ashish Gaurav

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Interests	Reinforcement Learning, Uncertainty in Decision Making, Continual Learning, Autonomous Driving	
Experience	VP for Education, Data Science Club, University of Waterloo Conducted reading group on reinforcement learning ; [presentations]	Jan '19+
	Subject Matter Expert, University of Toronto / Coursera Content design for online specialization on self driving cars (part-time)	Jul '18 - Oct '18
	Research Assistant, WISE Lab , University of Waterloo High Level Behavior Planning; most recent demo in Aug 2018 Safe Reinforcement Learning for Self Driving Cars, Continual Learning	Sep '17+
	Software Engineering Intern (SWE), Google Chrome OS Team, Mountain View, CA	May '16 - Jul '16
Projects	WiseMove : Hierarchical RL framework to investigate safety through runtime verification GridDriving , Gym simulator for option (RL) experiments behavior_planner : rule based high-level ROS planning module for autonomoose Flappy Bird , comparing UCB and bootstrapped RL techniques [report] Capsule Nets on FashionMNIST : exploratory analysis of capsule nets [report] ssh_scan : ssh vulnerability scanner; Mozilla Winter of Security '16 - '17 [blog post] Porting Perl for NaCl: Google Summer of Code '15 [archive] <u>Programming Skills</u> : Python, C, C++, Tensorflow, PyTorch	
Publications	Simple Continual Learning Strategies for Safer Classifiers 1st author, <i>accepted to</i> Workshop on AI Safety, AAAI '20 .	
	Out-of-distribution Detection in Classifiers via Generation [arXiv] 2nd author, <i>accepted to</i> Safety & Robustness in Decision Making Workshop, NeurIPS '19 .	
	WiseMove : A Framework to Investigate Safe Deep RL for Autonomous Driving [arXiv] 1st co-author, <i>accepted to</i> International Conference on Quantitative Evaluation of Systems '19 .	
	Design Space of Behaviour Planning for Autonomous Driving [arXiv] 3rd author, technical article.	
	Analysis of confident classifiers for out-of-distribution detection [arXiv] 1st co-author, <i>accepted to</i> Safe Machine Learning Workshop, ICLR '19 .	
Education	M. Math, Computer Science, University of Waterloo Research Supervisor: Prof. K. Czarnecki; CGPA: 89.75/100 (3.93/4.0) Graduation in Jan 2020.	Sep '17+
	B.E., Computer Science, BIT Mesra First Class with Distinction; CGPA: 8.96/10	Aug '13 - Apr '17
Scholarships	NSERC CREATE Student Grant	May '18+
	UW Graduate Scholarship	Sep '17 - Aug '18
	International Masters Student Award	Sep '17+