

Simon Chamorro

LinkedIn : www.linkedin.com/in/simon-chamorro
Github : www.github.com/simonchamorro
Website : simonchamorro.github.io

simon.chamorro@usherbrooke.ca
(+1) 514-998-4196
Languages : English, French and Spanish

EDUCATION	Université de Sherbrooke , Sherbrooke <i>Bachelor's in Robotic Engineering</i> Expected December 2021	GPA : 4.24/4.3
SKILLS	People Skills : Teamwork, Problem Solving, Leadership Languages : Python, C++, C, HTML, JavaScript, CSS Tools : Linux, ROS, Qt, Git, Pytorch, Docker, Matlab/Simulink, Solidworks Technical : Algorithms and Data Structures, Controller Design, Machine Learning, Reinforcement Learning, 3D Modeling, Network Protocols, UI, SLAM Business : Venture Capital, Entrepreneurship, Event Organising, Fund Raising	
EXPERIENCE	Robotics Research Intern	Sept 2020 - Present
	<i>Defense Research and Development Canada, Suffield, AB, Canada</i> <ul style="list-style-type: none">• Developing a human gesture recognition system using stereo imagery and LIDAR.• Implementing a teleoperation system for a UGV based on detected gestures.	
	Teaching Assistant	Apr 2020 - Aug 2020
	<i>Université de Sherbrooke, Sherbrooke, QC, Canada</i> <ul style="list-style-type: none">• GRO302 : Mobile Robotics Semester Project Course.	
	Autonomous Driving Research Intern	Jan 2020 - Apr 2020
	<i>Huawei, Markham, ON, Canada</i> <ul style="list-style-type: none">• Added features to our driving simulator such as a pure pursuit lateral controller.• Experimented with various RL algorithms and compared them on different tasks.• Implemented Soft Actor Critic and adapted it to our driving task.• Drafted a thorough literature review on motion planning using RL.	
	Research Intern	Apr 2019 - Sept 2019
	<i>Mila, Montreal, QC, Canada</i> <ul style="list-style-type: none">• Created a real-world 360° imagery dataset covering 6km of Montreal sidewalk.• Built a navigation RL environment that simulates multi-modal sensor observations.• Used the RL algorithm Proximal Policy Optimization to learn a policy on our task.• Benchmarked the performance of Scene Text Recognition models on our dataset.	
	Autonomous Navigation Intern	Sept 2018 - Dec 2018
	<i>Institut du Véhicule Innovant, Saint-Jérôme, QC, Canada</i> <ul style="list-style-type: none">• Participated in the development of the navigation system of an autonomous tractor.• Implemented and tested robotic mission management algorithms.• Built a software for GPS trajectory preparation to be followed by the robot.• Developed a user interface and a monitoring system for vehicle sensors.	
	Investment Team Associate	Mar 2019 - Present
	<i>Front Row Ventures, QC, Canada</i> <ul style="list-style-type: none">• Met with student founders, completed due diligence and evaluated their business.• Attended Investment Committees and decided on investments with the team.	
PUBLICATIONS	M. Weiss, S. Chamorro , R. Girgis, M. Luck, S. E. Kahou, J. Cohen, D. Nowrouze-zahrai, D. Precup, F. Golemo, C. Pal. "Navigation Agents for the Visually Impaired : A Sidewalk Simulator and Experiments" <i>Conference on Robot Learning 2019</i> .	

EXTRA-CURRICULAR ACTIVITIES	Software Developer & Founding Member Sept 2018 - Present <i>Robotique UdeS (Robotics student group)</i> <ul style="list-style-type: none"> • Participated to the creation of the group, including funding, structure, and branding. • Managing our website and editing our blog. • Developing software for a rover prototype for the forthcoming Canadian International Rover Challenge (CIRC) in 2021.
	Lead Organizer Jan 2019 - May 2019 <i>Startup Weekend Sherbrooke</i> <ul style="list-style-type: none"> • Raised 7000\$ in sponsorships and led the marketing campaign. • Found mentors and judges and coordinated the logistics of the event.
	Robotics Mentor Sept 2017 - Mar 2018 <i>UdeS First (Educational Robotics Student Group)</i> <ul style="list-style-type: none"> • Guided students in building and coding a Lego robot for the FIRST competition. • Gave introductory programming workshops to elementary school students.
HONORS	<ul style="list-style-type: none"> • Ordre des ingénieurs Foundation Scholarship (3000\$) – FOIQ, Québec 2020 • APCUS Student Involvement Scholarship (1000\$) – U. de S., Sherbrooke 2019 • Retiree Fund Student Involvement Scholarship (1000\$) – U. de S., Sherbrooke 2019 • Undergraduate Research Scholarship (5000\$) – IVADO, Montreal 2019 • Excellence Scholarship, J. A. Bombardier (1000\$) – U. de S., Sherbrooke 2018 • Certificate of Academic Excellence – U. de S., Sherbrooke 2018 & 2019
PROJECTS	UdeS Racecar Fall 2019 (5th semester) <i>Université de Sherbrooke</i> <ul style="list-style-type: none"> • Programmed a web interface for teleoperating the racecar using HTML and roslibjs. • Designed PID and LQR controllers for vehicle speed and position. • Implemented different behaviours such as obstacle detection, and potential field path planning.
	Face Tracking Camera Winter 2019 (4th semester) <i>Université de Sherbrooke and ZAP, Montreal</i> <ul style="list-style-type: none"> • Programmed a prototype face tracking system to film and follow artists on stage. • Developed the system's software in Python in a ROS environment.
	Intelligent Vehicle on Rails Summer 2018 (3rd semester) <i>Université de Sherbrooke</i> <ul style="list-style-type: none"> • Designed the hardware of a 4-wheel vehicle that transported a mass on a pendulum. • Modeled the vehicle's dynamics and designed a controller using Matlab and Simulink.
	Automated Production Line Winter 2018 (2nd semester) <i>Université de Sherbrooke</i> <ul style="list-style-type: none"> • Programmed UR and FANUC routines for robotic arms.
VOLUNTEER WORK	Volunteer, Oktoberfest, Sherbrooke 2019 Volunteer, Founder Fuel Demo Day, Montreal 2019 Volunteer International Conference on Robotics and Automation, Montreal 2019
INTERESTS AND HOBBIES	<ul style="list-style-type: none"> • Robotics • Machine Learning • Reinforcement Learning • 3D Printing • Soccer • Sprint-Kayaking • Triathlon