GABRIEL DESCÔTEAUX

Email : gabriel.descoteaux@polymtl.ca **Montreal, Quebec, Canada (514) 404-5254**
Portfolio : gadese.github.io

Note: Refer to my portfolio for details on completed projects, and further general information!

Relevant information

- Knowledge in controls, artificial intelligence, computer vision, robotics, deep learning, ROS, etc.
- Fluent in French and English, and eager to learn and face new challenges
- Demonstrated excellent organizational, teamwork and project management skills as project leader

Education

M.Sc. in Mechanical Engineering – Robotics and Mechatronics systems — **GPA: 4.00/4.00** — **2018-Today**

Thesis: *Autonomous feeding-assistance system for people with upper body disabilities*
Tools used: Keras, Tensorflow, ROS, Gazebo, MoveIt!, Kinova Mico

Research Group in Design, Machine Learning and Optimization for Mechatronic Systems, Polytechnique Montréal *2019*
Recipient of the prestigious and competitive FRQNT research grant for M.Sc. students *2019*
Recipient of the JA DeSève award by Polytechnique Montreal *2018*
Recipient of the prestigious and competitive NSERC research grant for M.Sc. students **2015-2018**

B.Sc. in Electrical Engineering — **GPA: 3.84/4.00**

Polytechnique Montréal – Montréal, Quebec *2017, 2018*
Recipient of the CMC Électronique award by Polytechnique Montreal *2016*
Recipient of the Vedel award by Polytechnique Montreal *2015*
Recipient of the Hatch Ltd. award by Polytechnique Montreal

Relevant classes*:* AI: Methods & algorithms, AI: Probabilistic & learning techniques, Practical Reinforcement Learning, Coursera's Deep Learning Specialization, Udacity's Artificial Intelligence for Robotics

Engineering Experience

Intern – Software developer — **2018**

Analogic Canada

Research intern in robotics — **2015-2017**

Research Group in Design, Machine Learning and Optimization for Mechatronic Systems, Polytechnique Montreal
Recipient of the competitive NSERC Summer research grant for undergraduate research 2016-2017

- Robust design of a drone project using various optimization techniques 2017-2018
- Control – Facial recognition project 2015-2017

Research intern in biomedial imaging — **2015**

Laboratory of Optical Diagnoses and Imaging, École Polytechnique de Montréal
Recipient of the competitive NSERC Summer research grant for undergraduate research

Personal Projects / Student Groups

Learning Reinforcement learning — **2019-Today**

Tools used: Keras, Tensorflow, OpenAI Gym, Deep reinforcement learning (DDPG, PPO, DQN, etc.)

Duckietown AI competition & other coding challenges — **2018-Today**

Tools used: Keras, Pytorch, OpenAI Gym, Deep reinforcement learning (DDPG)

Rubik's cube self-solving robot — **2019**

Tools used: OpenCV(computer vision), Machine learning(sci-kit learn), ROS, 3D printer, Python

Wearable glove to measure forces within fingers for rock-climbers — **2017-2018**

Self-balancing robot — **2017-2018**

PolyProject (Engineering student club) — **2014-2018**