



4 Courses

**Introduction to Self-Driving Cars**

**State Estimation and Localization for Self-Driving Cars**

**Visual Perception for Self-Driving Cars**

**Motion Planning for Self-Driving Cars**



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**Vipin Rai**

has successfully completed the online, non-credit Specialization

## Self-Driving Cars

This Specialization gives you a comprehensive understanding of state-of-the-art engineering practices used in the self-driving car industry. By interacting with real data sets from an autonomous vehicle (AV), you'll implement methods for static and dynamic object detection, localization and mapping, behaviour and maneuver planning, and vehicle control — all through hands-on projects using the open source simulator CARLA. You'll learn from a highly realistic driving environment that features 3D pedestrian modeling and environmental conditions. When you complete the Specialization successfully, you'll be able to build your own self-driving software stack and be ready to apply for jobs in the autonomous vehicle industry.

Associate Professor,  
Aerospace Studies  
Director, Toronto  
Robotics and Artificial  
Intelligence Laboratory

Associate Professor,  
Aerospace Studies  
Director, Space &  
Terrestrial Autonomous  
Robotic Systems  
Laboratory

The online specialization named in this certificate may draw on material from courses taught on-campus, but the included courses are not equivalent to on-campus courses. Participation in this online specialization does not constitute enrollment at this university. This certificate does not confer a University grade, course credit or degree, and it does not verify the identity of the learner.

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