EMERGENCY TA Job Posting: Summer 2022 APS1080: Introduction to Reinforcement Learning

This job is posted in accordance with the CUPE 3902 Unit 1 Collective Agreement.

Job Posting Date: April 1, 2022  
Application Deadline: April 15, 2022

Course Description:
Reinforcement Learning (RL) is a systems-level Artificial Intelligence toolset; this course will provide the student with both a solid theoretical foundation and a strong practical understanding of the subject. RL enables autonomous agents to cope with poorly-characterized, novel environments by exploring the environment to gain knowledge about it, and to exploit this knowledge of the environment to act in a goal-directed manner. Although RL is positioned as one of three facets of Machine Learning, RL has far broader scope than the narrower tools of supervised and unsupervised learning. RL, being founded on agent design, has the goal of developing artificial intelligence schemes that can endow an agent with autonomy. This introduction, thus, will be presented within the motivating context of an overall AI system. There are three foundational RL tools we will cover (dynamic programming, Monte Carlo, Temporal-Difference Learning); we will also show how hybridizations of these foundational tools are employed to create production schemes. The student should leave the course with the ability to practically apply this AI toolset to novel problems.

This course is taught online.

2 positions Available – 20 Hours

Duties: developing solutions for assignments and tests, grading assignments and tests

Qualifications: very strong Python programming skills, knowledge of machine learning, linear algebra, calculus, probability, some knowledge of reinforcement learning and AI

Rate of Pay: Current TA rates: U/G: $47.17/hour; SGS I: $47.17/hour; SGS II: $47.17/hour

Date of Appointment: May – Aug 2022

Notes:
1. TA position and hours posted are tentative, pending final course determination and enrollment.
2. The Vice-Dean of Graduate Studies in the Faculty of Applied Science & Engineering has the sole authority to offer the above TA positions.
3. CUPE 3902 Unit 1 Collective Agreement is available at [http://agreements.hrandequity.utoronto.ca](http://agreements.hrandequity.utoronto.ca).

To apply for a TA position, please submit your application (cover letter and CV as single PDF file) through this form by April 15, 2022

If the form does not work, please email David Duong, gradstudies@engineering.utoronto.ca
If during the application and/or selection process you require accommodation due to a disability, please contact David Duong, d.duong@utoronto.ca

The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from racialized persons / persons of colour, women, Indigenous / Aboriginal People of North America, persons with disabilities, LGBTQ persons, and others who may contribute to the further diversification of ideas.

Duties of this position shall be performed at the campus on which the position is located. Where the duties are intended to be performed at another location, such other location will be specified in the posting.

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