Computer Science
UNIVERSITY OF TORONTO

# Department of Computer Science, downtown campus
## Job Posting - T*eaching Assistant Position – CUPE 3902, Unit 1*
## Fall 2025 term (September 1, 2025 – December 31, 2025 or up to January 9, 2026)

**Posted on June 23, 2025 as a Regular Posting**

The Department of Computer Science seeks ~6 TAs for the following course:

**CSC413H1F (Crosslisted to CSC2516HF) – Neural Networks and Deep Learning**

Visit link for course description: https://artsci.calendar.utoronto.ca/course/csc413h1

## CSC413H1F: Regular TAs

**Qualifications**

- Currently enrolled in or completed an undergraduate program in Computer Science, Statistics, Mathematics, or related quantitative field
- Strong academic performance in deep learning coursework (CSC413 or equivalent)
- Demonstrated ability to explain the following neural networks and deep learning concepts clearly to diverse audiences OR prior experience teaching the following concepts: feedforward neural networks, backpropagation, convolutional neural networks (CNNs), recurrent neural networks (RNNs), LSTMs/GRUs, transformers and attention mechanisms, autoencoders, generative adversarial networks (GANs), optimization algorithms (SGD, Adam), regularization techniques, and transfer learning
- Solid foundation in mathematical prerequisites: linear algebra, multivariable calculus, probability theory, and statistics
- Proficiency in Python with extensive experience working in a deep learning framework such as PyTorch, TensorFlow, or Theano.

**Relevant Criterion**
Previous experience is the more relevant criterion than the need to acquire experience in respect of this posted position.

**Duties**

All duties are in-person unless otherwise indicated. TA duties may include marking written assignments, programming assignments, term tests, and final exam, leading tutorials, holding office hours, proofreading term tests and the final exam, and answering questions on Piazza. TAs must be available for in-person course team meetings during regular business hours.

This course also requires all TAs to be available to mark the final exam in-person during regular business hours. The final exam date is determined by the Faculty of Arts & Science and may be scheduled between Dec. 5-23. The exam schedule is released in November 2025. Every effort will be made to schedule and complete the exam marking within 5 business days after the final exam date. TAs may be required to complete grading January 5-9, 2026 if the exam is scheduled during the last few days of the exam period. The University is closed for the holiday break between December 24, 2025-January 4, 2026.

**Positions Available: 5**

**Hours of work:** 60 hours

## CSC413H1F-Lead: Lead TA

### Qualifications

- Currently enrolled in or have completed an undergraduate program in Computer Science, Statistics, Mathematics, or a related quantitative field
- Must have completed this course or equivalent coursework (CSC413) with a grade of A- or higher
- Must be a graduate student with research experience related to deep learning.
- Preference will be given to applicants who have previous experience as a TA for CSC413 or CSC2516.
- Excellent written and oral communication skills
- Strong organizational skills and proven ability to lead small teams effectively
- Ability to clearly explain the following machine learning concepts to diverse audiences OR prior teaching experience with these topics: feedforward neural networks, backpropagation, convolutional neural networks (CNNs), recurrent neural networks (RNNs), LSTMs/GRUs, transformers and attention mechanisms, autoencoders, generative adversarial networks (GANs), optimization algorithms (SGD, Adam), regularization techniques, and transfer learning
- Strong foundation in essential mathematical prerequisites: linear algebra, multivariable calculus, probability theory, and statistics
- Proficiency in Python with extensive experience working in a deep learning framework such as PyTorch, TensorFlow, or Theano.
- Available during regular business hours to fulfill all assigned responsibilities

**Relevant Criterion**
Previous experience is the more relevant criterion than the need to acquire experience in respect of this posted position.

### Duties

All duties are conducted in-person unless otherwise specified. The Lead TA will assist with various course administration and coordination duties, including:

- Coordinate CSC413 teaching assistants by scheduling TAs for office hours and grading assignments, and ensure consistent communication across the teaching team
- Edit and proofread questions, solutions, and grading rubrics for practice problems, term tests, and the final exam
- Hold regular office hours to assist students
- Respond to student questions on Piazza
- Grade course assessments, including assignments, tests, final projects, and final examinations
- Process remark requests from students

This course also requires all TAs to be available to mark the final exam in-person during regular business hours. The final exam date is determined by the Faculty of Arts & Science and may be scheduled between Dec. 5-23. The exam schedule is released in November 2025. Every effort will be made to schedule and complete the exam marking within 5 business days after the final exam date. TAs may be required to complete grading January 5-9, 2026 if the exam is scheduled during the last few days of the exam period. The University is closed for the holiday break between December 24, 2025-January 4, 2026.

**Positions Available: 1**

**Hours of work: 60** hours
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**Estimated Course Enrolment: 160**

**Rate of Pay: $52.97/hour (+ vacation pay)**

## Application Process

Apply online at: https://tapp.cs.toronto.edu/hash/external/postings/G7AMXcXfoALSZ575eDHxrdLx

In your application you will be asked to provide a brief response to the following questions for CSC413H1F

- Briefly describe one concrete approach you would use to help students understand the self-attention mechanism. Explain one or more aspects of this concept that students might find challenging. How does your approach help students overcome this challenge? Have you use this approach in the past? If so, please comment on your experience.

In your application you will be asked to provide a brief response to the following questions if you are applying for the CSC413H1F-Lead position:

- Do you have previous experience as a TA for this course at the Department of Computer Science, St. George campus?
- Please provide a brief statement of interest as to why you are interested in being the lead-TA for this course:

The deadline to submit your application is **Wednesday July 16, 2025 at 11:59pm EST.** For more information, you may contact:

**Patrina Seepersaud,** Admin Staff
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The University strives to be an equitable and inclusive community, and proactively seeks to increase diversity among its community members. Our values regarding equity and diversity are linked with our unwavering commitment to excellence in the pursuit of our academic mission. The University is committed to the principles of the Accessibility for Ontarians with Disabilities Act (AODA). As such, we strive to make our recruitment, assessment and selection processes as accessible as possible and provide accommodations as required for applicants with disabilities. If you require any accommodations at any point during the application and hiring process, please contact uoft.careers@utoronto.ca. During employment, to request accommodation from the University, contact the supervisor or department chair and/or Health & Wellbeing Programs & Services at hwb@utoronto.ca. For more information about accommodations at U of T, please visit our Accommodation webpage.

The hiring criteria for Teaching Assistant positions are academic qualifications, the need to acquire experience, previous experience and previous satisfactory employment under the provisions of this Collective Agreement.

Candidates who are members of Indigenous, Black, racialized and LGBTQ2S+ communities, persons with disabilities, and other equity seeking groups are encouraged to apply, and their lived experience shall be taken into consideration as applicable to the position.

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, LGBTQ2S+ persons, and others who may contribute to the further diversification of ideas.

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

The position(s) posted above is (are) tentative, pending final course determinations and enrolments.

Positions posted here are open to Graduate Students in the School of Graduate Studies, Postdoctoral Fellows and Undergraduate Students in the University of Toronto.

Preference in hiring shall be given to Graduate Students enrolled in the School of Graduate Studies of the University of Toronto or those who have made application to be enrolled in the School of Graduate Studies of the University of Toronto.