CMPT 829 - G200 Special Topics in Bioinformatics

Instructor(s): Maxwell Libbrecht

Calendar Objective/Description: Examination of recent literature and problems in bioinformatics. Within the CIHR graduate bioinformatics training program, this course will be offered alternatively as the problem-based learning course and the advanced graduate seminar in bioinformatics (both concurrent with MBB 829).

Instructor’s Objectives: This is a seminar-style course focusing on applications of deep neural networks. Each class, students will present papers on recent advances in deep learning. We will choose the papers based on the interests of the enrolled students. We will aim to cover methods that apply a variety of network architectures, learning strategies and implementations. Application areas include:

- Genomics
- Biological imaging
- Vision
- Speech
- Natural language
- Recommender systems
- Knowledge representation

A primary focus of this course will be on building presentation skills. Giving good presentations at conferences and job visits is a critical skill for success in academia or industry. Each student will receive feedback on their talk from the instructor and the other students. General guidelines and strategies for giving good talks will be given, and students will receive feedback on their presentations from the instructor and other students.

Prerequisites: permission of the instructor.

Grading: Grades will be determined by presentations and participation in class.

Academic Honesty Statement:: Academic honesty plays a key role in our efforts to maintain a high standard of academic excellence and integrity. Students are advised that ALL acts of intellectual dishonesty will be handled in accordance with the SFU Academic Honesty and Student Conduct Policies (http://www.sfu.ca/policies/gazette/student.html).