kvarada adding hw9 Github repo link ✓ d3f0931 · 2 months ago

155 lines (124 loc) · 14 KB

deploy-book passing

UBC CPSC 330: Applied Machine

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Preview Code Blame Raw

This is the course homepage for CPSC 330: Applied Machine Learning at the University of British Columbia. You are looking at the current version (Sep-Dec 2025).

Syllabus

The syllabus is available here. Please read it carefully to understand all rules and expectations of this course. The content of the syllabus is tested in a quiz, to be completed by Sep 19, 11:59 pm.

Outline

Filter headings

The teaching team

Instructors

Section	Instructor	Contact	When	Where
101	Giulia Toti	gtoti@cs.ubc.ca	Tue & Thu, 15:30–16:50	DMP 310
102	Varada Kolhatkar	kvarada@cs.ubc.ca	Tue & Thu, 11:00–12:20	DMP 310
103	Giulia Toti	gtoti@cs.ubc.ca	Tue & Thu, 17:00–18:20	DMP 310

Course co-ordinator

- Anca Barbu (cpsc330-admin@cs.ubc.ca), please reach out to the course co-ordinator for: admin questions, extensions, academic concessions etc. Include a descriptive subject, your name and student number, this will help us keep track of emails.

TAs

- Ayanfe Adekanye

- Gaurav Bhatt - OH Fridays, 15:00-16:00 DEMCO table 6
- Jun He Cui - OH Thursdays, 16:00-17:00 in ICCS X153
- Felix Fu - OH Tuesdays, 14:00-15:00 in ICCS X150 table 1
- Neo Ghassemi - OH Wednesdays, 14:00-15:00 in ICCS X337
- Zoe Harris
- Zheng He - OH Mondays, 16:00-17:00 DEMCO table 6
- Mishaal Kazmi
- Kanwal Mehreen
- Himanshu Mishra
- Rubia Reis Guerra
- Kimia Rostin
- Sohbat Sandhu
- Mir Rayat Imtiaz
- Joseph Soo
- Allya Wellyanto

License

Important links

- Calendar

- Course GitHub page
- Course Jupyter book
- Canvas
- Piazza
- iClicker Cloud Section 101 and 103 (through Canvas), iClicker Cloud Section 102
- Gradescope
- Course videos YouTube channel
- Syllabus / administrative info
- Other course documents

Deliverable due dates (tentative)

Usually the homework assignments will be due on Mondays (except next week) and will be released on Tuesdays. We'll also add the due dates in the Calendar. If you find inconsistencies in due dates, follow the due date in the Calendar. For this course, we'll assume that the Calendar is always right!

Assessment	Due date	Where to find?	Where to submit?
hw1	Sept 09, 11:59 pm	GitHub repo	Gradescope
hw2	Sept 16, 11:59 pm	GitHub repo	Gradescope
Syllabus quiz	Sept 19, 11:59 pm	PrairieLearn (access through Canvas tab)	(access through Canvas tab)

Assessment	Due date	Where to find?	Where to submit?
hw3	Sept 29, 11:59 pm	GitHub repo	Gradescope
hw4	Oct 06, 11:59 pm	GitHub repo	Gradescope
Midterm 1	Oct 15 and Oct 16	PrairieLearn (CBTF, in person)	PrairieLearn (CBTF, in person)
hw5	Oct 27, 11:59 pm	GitHub repo	Gradescope
hw6	Nov 03, 11:59 pm	GitHub repo	Gradescope
Midterm 2	Nov 13 and Nov 14	PrairieLearn (CBTF, in person)	PrairieLearn (CBTF, in person)
hw7	November 17, 11:59 pm	GitHub repo	Gradescope
hw8	November 24, 11:59 pm	GitHub repo	Gradescope
hw9	December 05, 11:59 pm	GitHub repo	Gradescope

Assessment	Due date	Where to find?	Where to submit?
Final exam	TBA	PrairieLearn (CBTF, in person)	PrairieLearn (CBTF, in person)

Lecture schedule (tentative)

Live lectures: The lectures will be in-person. The location can be found in the Calendar.

This course will be run in a semi flipped classroom format. There will be pre-watch videos for many lectures, at least in the first half of the course. All the videos are available on YouTube and are posted in the schedule below. Try to watch the assigned videos before the corresponding lecture. During the lecture, we'll summarize the important points from the videos and focus on demos, iClickers, and Q&A.

We'll be developing lecture notes directly in this repository. So if you check them before the lecture, they might be in a draft form. Once they are finalized, they will be posted in the Course Jupyter book.

Date	Topic	Assigned videos	vs. CPSC 340
Sep 2	*UBC Imagine Day - no class*		
Sep 4	Course intro	📹 Pre-watch: 1.0	n/a

Date	Topic	Assigned videos	vs. CPSC 340
Sep 9	Decision trees	📹 Pre-watch: 2.1, 2.2, 2.3, 2.4	less depth
Sep 11	ML fundamentals	📹 Pre-watch: 3.1, 3.2, 3.3, 3.4	similar
Sep 16	k-NNs and SVM with RBF kernel	📹 Pre-watch: 4.1, 4.2, 4.3, 4.4	less depth
Sep 18	Preprocessing, `sklearn` pipelines	📹 Pre-watch: 5.1, 5.2, 5.3, 5.4	more depth
Sep 23	More preprocessing, `sklearn ColumnTransformer`, text features	📹 Pre-watch: 6.1, 6.2	more depth
Sep 25	Linear models	📹 Pre-watch: 7.1, 7.2, 7.3	less depth
Sep 30	*National Day for Truth and Reconciliation - no class*		
Oct 02	Hyperparameter optimization, overfitting the validation set	📹 Pre-watch: 8.1, 8.2	different

Date	Topic	Assigned videos	vs. CPSC 340
Oct 07	Evaluation metrics for classification	📹 Reference: 9.2, 9.3,9.4	more depth
Oct 09	Regression metrics	📹 Pre-watch: 10.1	more depth on metrics less depth on regression
Oct 14	Ensembles	📹 Pre-watch: 11.1, 11.2	similar
Oct 15-16	*Midterm 1 - no class*		
Oct 21	Feature importances, model interpretation	📹 Pre-watch: 12.1,12.2	feature importances is new, feature engineering is new
Oct 23	Feature engineering and feature selection	None	less depth
Oct 28	Clustering	📹 Pre-watch: 14.1, 14.2, 14.3	less depth
Oct 30	More clustering	📹 Pre-watch: 15.1, 15.2, 15.3	less depth

Date	Topic	Assigned videos	vs. CPSC 340
Nov 04	Simple recommender systems		less depth
Nov 06	Text data, embeddings, topic modeling	📹 Pre-watch: 16.1, 16.2	new
Nov 11	*UBC Midterm break - no class*		
Nov 13-14	*Midterm 2 - no_class*		
Nov 18	Neural networks and computer vision		less depth
Nov 20	Time series data	(Optional) Humour: The Problem with Time & Timezones	new
Nov 25	Survival analysis	📹 (Optional but highly recommended)Calling Bullshit 4.1: Right Censoring	new
Nov 27	Communication	📹 (Optional but highly recommended)	new

Date	Topic	Assigned videos	vs. CPSC 340
		• Calling BS videos Chapter 6 (6 short videos, 47 min total) • Can you read graphs? Because I can't. by Sabrina (7 min)	
Dec 02	Ethics	📹 (Optional but highly recommended) • Calling BS videos Chapter 5 (6 short videos, 50 min total) • The ethics of data science	new
Dec 04	Model deployment and conclusion		new

Reference Material

▶ Click to expand!

Syllabus

The syllabus is available here.

Enjoy your learning journey in CPSC 330: Applied Machine Learning!