WEEK 5 SECTION: MIDTERM REVIEW

ALEX MEI | WINTER 2023 | MACHINE LEARNING

OFFICE HOURS: THURSDAY 2 – 3 PM HENLEY 2113 (Except this week.)

cs.ucsb.edu/~alexmei/cs165b.html

About Me

Research:

* Responsible Machine Learning: AI Transparency and Physical Safety

* Natural Language Generation: Summarization and Visual Augmentation

Industry:

* Internships: Procore, Amazon, Benchling, Two Sigma

* Interests: Machine Learning Research, Deep Learning

Etcetera:

* UCSB CS BSMS (2022, 2023), ERSP (2020)

* Hobbies: Cooking, Pokemon TCG, Reality Competitions

Midterm Review Kahoot

* 1st Place wins a field trip to the CS Department Swag Shop!

* https://create.kahoot.it/share/cs165b-machine-learning-midterm-review/73f86315-bc87-4311-bf55-feb3b5bd1a3f

Interpreting Your Performance

15 - 20 Correct | Very impressive! Remember to not be overconfident, do a little review, and you should be more than fine for the midterm!

10 - 14 Correct | You did well! If you review the course material and sample midterm, you should be fine for the midterm!

5 - 9 Correct | You should make sure to review the course material and sample midterm in detail and come to office hours with additional questions.

0 - 4 Correct | It would be a very good idea for you to do a detailed, thorough, and comprehensive review of the all course material, the sample midterm, and my notes. Also, it is strongly encouraged for you to start proactively asking questions on Piazza and in office hours.

HW1 Concept Review

* Please read Piazza before finalizing homework submission to ensure you don't lose points

* **Domain Objects:** input data from which features can be extracted

* **Types of Learning:** determine at training phase – what labels are we given?

* **Label Space vs Output Space:** possible correct answers vs possible model outputs

* **Norms:** kth root of the sum of each absolute component to the kth power

* **Intrinsic Dimensionality:** relevant and nonredundant dimensions

* **Linearly Separability:** if there exists some weight w s.t. $w^T x > 0$ perfectly separates the labels

Visit these!!!

https://sites.cs.ucsb.edu/~alexmei/cs165b.html

https://piazza.com/class/lcn0dnfd9ze4h3

http://william.cs.ucsb.edu/courses/index.php/Winter_2023_CS165B_Machine_Learning