Alex Salman
2nd Year CSE Master's Student
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Applicant for CSE 247 (Projects in Artificial Intelligence) - Spring 2022
02/02/2022

Timeline of my experience related to Artificial Intelligence, Machine Learning, and Deep Learning:

Winter 2022

CSE 240: Artificial Intelligence
Learning about AI algorithms and their applications

Fall 2021

CSE 242: Machine Learning
Learned about and used ML concepts and algorithms
CSE 244A: Foundations of Deep Learning (course audit)
Learned about deep learning principles and architectures
CSE 290D: Neural Computation
Worked on analysis and evaluation of Deep Learning Image Recognition on ImageNet dataset work and reported results in NeurIPS conference style.
https://github.com/alexsalman/NeuralComputation/blob/main/NeurIPS_2021_alex_salman.pdf

Spring 2021

CSE 290T: Topics in Computing for Society
I have worked on a quarter group project/study (Deep k-NN for Noisy Labels); Comparison of clustering algorithms to remove training examples with noisy labels.
Summary:
"The methods to handle label noise in machine learning can be classified into two main strategies. One strategy is to explicitly identify the noisy examples and either remove them or relabel them. A second strategy is to handle the noise with robust training methods. The purpose of the study is to identify and remove examples with noisy labels using MNIST and Fashion MNIST datasets by reproducing and extending the work of Deep k-NN for Noisy Labels from Google Research, http://proceedings.mlr.press/v119/bahri20a/bahri20a.pdf. Our extension to their work introduced alternate clustering algorithms to the k-NN approach they present."

Fall 2020

NLP 280: Seminar in NLP

Attended and participated in discussions of weekly guest speaker talks from industry research and advanced development working in the area of Natural Language Processing.

Summer 2020

Deep Learning Courses

In 4 Coursera courses, I have learned about and used Machine Learning, Neural Networks, NNA, CNN, ANN, Backpropagation, Tensorflow, Regularization, Mathematical Optimization, Hyperparameter Tuning, Inductive Transfer, Multi-Task Learning, Decision-Making, Facial Recognition System and Object Detection and Segmentation.

Please, refer to my certificates below for more details:

https://www.coursera.org/account/accomplishments/verify/Z7F4PKJSQWYA
https://www.coursera.org/account/accomplishments/verify/J9HZL99ERZ8T
https://www.coursera.org/account/accomplishments/verify/YK6F98G28EAS
https://www.coursera.org/account/accomplishments/verify/XQUPJ6NXA5NH

Feb 2018 - Feb 2020

Work Experience

I have worked on using Machine Learning and NLP/NLU models for text search intents as a Search Language Specialist at Google Search.

Projects I am interested in completing as part of my CSE 247 coursework:

Although I have developed different interests in the last few quarters at school through reading research papers in Machine Learning and Deep Learning, I still prefer my coursework in CSE 247 to be application-based work to applying ML/DL concepts I have been learning. Ideally, I would be love to work on commercial or medical datasets that have been collected from people. However, I am open to learning about the instructor's recent areas of interest and helping to extend their future research. Furthermore, I am confident that with the instructor's guidance and reading more papers, I will be able to produce outstanding work that could meet if not exceed the professor's expectations.

Thank you for considering my application!