Introduction to Deep Learning

Welcome to the **Introduction to Deep Learning** course! I am **Dongchul Kim**, an Associate Professor in the Department of Computer Science. I am excited to have you all here and look forward to exploring the dynamic world of Deep Learning together.

Course Prerequisites
To fully benefit from this course, you should have a solid foundation in the following areas:

Mathematics: Knowledge of calculus, algebra, and statistics is fundamental to understanding the theory and mechanics behind Deep Learning algorithms.

Algorithms: Prior coursework in Algorithms, specifically CSCI3333, will be beneficial. Understanding algorithmic complexity and basic data structures will aid in creating and analyzing efficient models.

Python Programming: Python is the preferred language in the field of machine learning and AI. We will use Python to implement our models, hence a good command of Python is essential.

Linux OS Skills: Basic understanding and navigation skills of Linux OS will be handy as we will be utilizing it frequently in our course.

Deep Learning Frameworks
The course will mainly utilize PyTorch for practical demonstrations and assignments, although TensorFlow may occasionally be used. Familiarizing yourself with these frameworks will be instrumental in not only understanding but also creating your own deep learning models.

Textbooks
While there are no required textbooks for this course, it is highly recommended that you have at least one reference book for your deep learning studies. This will further strengthen your understanding of the topic and provide additional information and perspectives.

Evaluation Policy
Your performance in this course will be evaluated based on:

Lab and Homework Assignments: The lab and homework assignments are designed to reinforce the material covered in class and give you practical experience implementing and troubleshooting deep learning models.

Attendance: Regular attendance is expected and will form part of your final grade.

Course Participation: Active participation during lectures, asking questions, and contributing to discussions, is crucial to your learning experience and will also be assessed.

Team Projects: You will be required to complete a team project. This hands-on experience is invaluable and will greatly enhance your understanding and application of deep learning.

Online Sessions
Depending on the circumstances, some sessions may be conducted online via Zoom. I will provide ample notice before any changes to our regular class schedule.

Communication
Remember to ask questions whenever you have them. I can't know what you're struggling with unless you tell me. So, don't hesitate to raise your hand or shoot me an email.

First Assignment
Before we end today, please note that Lab 1 is to be completed as soon as possible. This will ensure we are all on the same page moving forward.

https://discord.gg/YVxjXeXvEN

CEO Presentations
Select your favorite startup venture from the AI 100 list covering the years 2018 to 2023. Take a tour of the company's official website and dive into news articles associated with the organization. Imagine yourself as the CEO of this company, and create a series of PowerPoint slides designed to introduce your enterprise in a brief 5 to 10-minute presentation. Submit the completed slides on the blackboard.

Welcome once again to the fascinating world of Deep Learning. Let's embark on this intellectual journey together. **Happy Learning!**