INSY446 - Data Mining for Business Analytics

Kyunghee Lee

About me 👨‍🏫

- Kyung Hee Lee
- Assistant Professor of Information Systems, McGill (2023-)
  - AP, Wayne State University, Detroit (2017-2023)
  - Postdoc, McGill (2016-2017)
- PhD in Management Engineering, KAIST, Seoul
- Research: digital platforms, decentralized applications, business value of IT

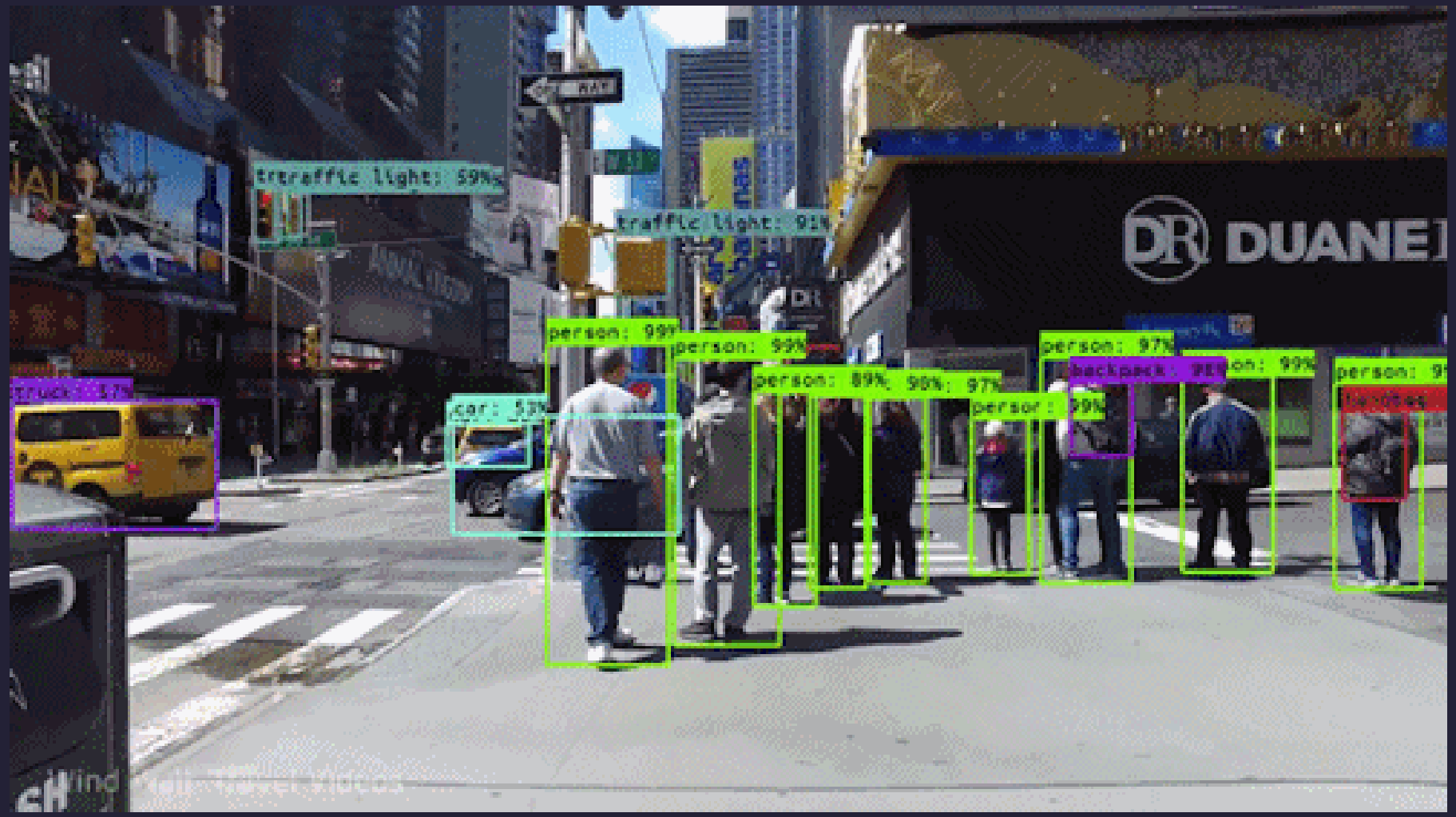
TA 

- Yanda Tao
- PhD student in Information Systems

What is AI?

"To think this all began with letting autocomplete finish our sentences."

Smart glass



Deepfake

https://youtu.be/iyiOVUbsPcM?si=3N5ijfjZoQJu92EY

Autonomous driving

How AI Could Empower *Any* Business

https://youtu.be/reUZRyXxUs4?si=jKVTw_JA4x7NxJNU

BCG says AI consulting will supply 20% of revenues this year

CEO projects share of sales will double as companies integrate technology into operations

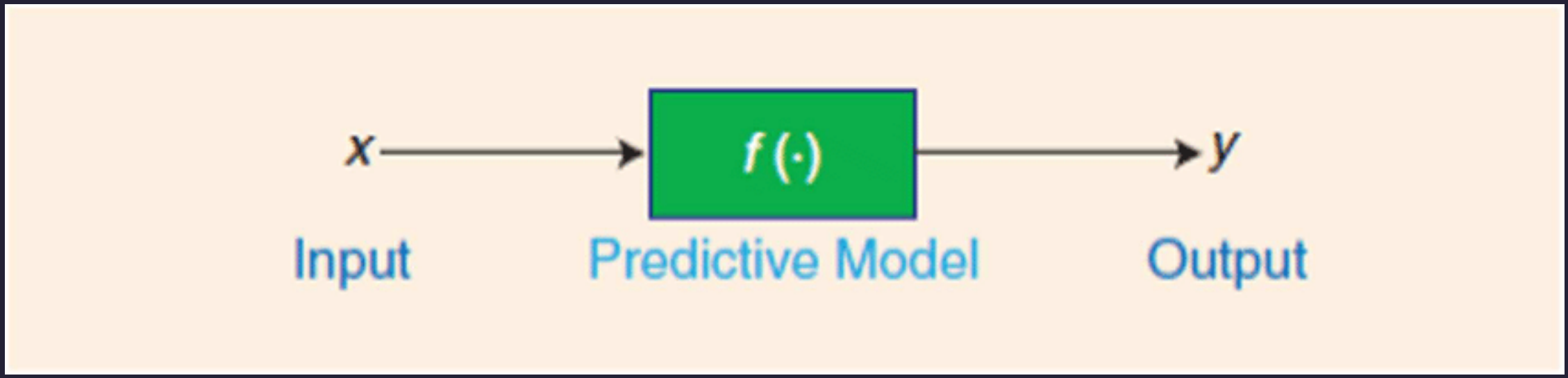
https://www.ft.com/content/33dfaec4-b5e7-4eca-a869-cdd33d447e65

Course objectives

- Understand the core principles of data mining and machine learning techniques.
- Develop the ability to implement ***predictive modeling*** using Python.
- Analyze and interpret the results of predictive models to inform business decisions.
- Design and implement a ***ML workflow*** to solve real-world business problems using data and machine learning.

Predictive modeling

ML techniques (supervised learning) to predict an outcome based on input data.



ML workflow

Problem scoping

Experimentation

- Choosing architecture (data, model)
- Training
- Evaluation

Deployment

Logistics

Course website: https://insy446.github.io/

MyCourses: for grades

Questions

- Course content: post on Ed Lesson
- Personal matters: email me or TA

Tools

- Python
- Ed Lesson (https://edstem.org)
- DataCamp (https://www.datacamp.com)

Coursework

- Take-Home Exercise
- Assignment
- Exam
- Team project

Grading policy

Component	Weight (%)
Participation	5
Take-Home Exercise	10
Assignment	15
Exam	35
Project	35

- Late submission: 10% deduction/day; won't be accepted after 10 days
- Deferring exam: only for exceptional circumstances; documentation required
- Academic integrity
- Refer to **syllabus** for details

Getting to know each other

- Background
- Career goal?
- What got you interested in this course?
- What do you do for fun other than coding?
- Tips for surviving Montreal winter?