

INSY336 - Data handling and *coding* for analytics 🚀

Kyunghee Lee

About me

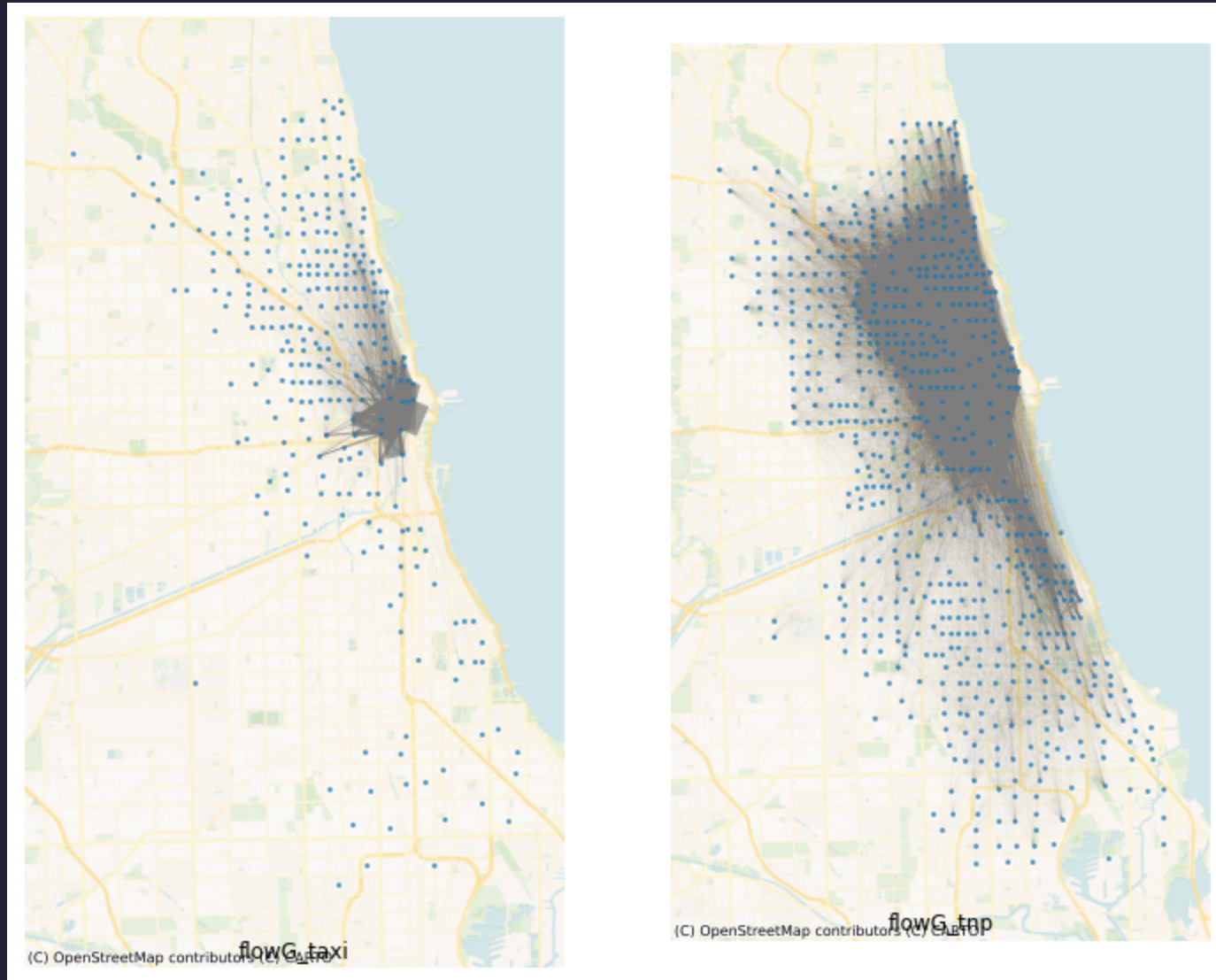
- Kyung Hee Lee
- Assistant Professor of Information Systems, McGill (2023-)
 - AP, Wayne State University, Detroit (2017-2023)
 - Postdoc, McGill (2016-2017)
- PhD in Management Engineering, KAIST, Seoul
- Research: digital platforms, decentralized applications, business value of IT



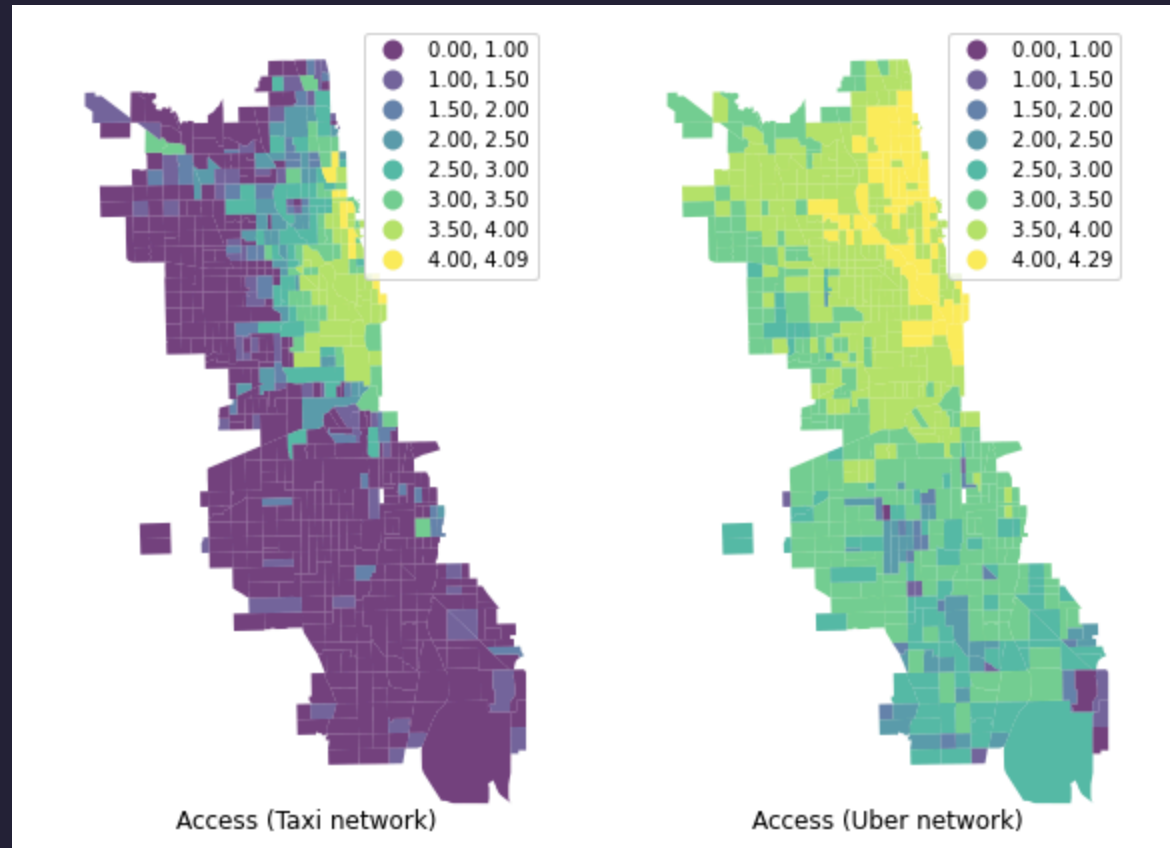
- Dugmee Hwang (Dug Mee Hwang)
- PhD student in Information Systems

Q: Can Uber improve access to healthy foods?

Taxi vs. Uber trips in 2019 (from Chicago Data Portal)



Taxi vs. Uber: Accessibility to grocery stores



Data Scientist: The Sexiest Job of the 21st Century

Meet the people who can coax treasure out of messy, unstructured data. by Thomas H. Davenport and DJ Patil

From the Magazine (October 2012)

Is Data Scientist Still the Sexiest Job of the 21st Century?

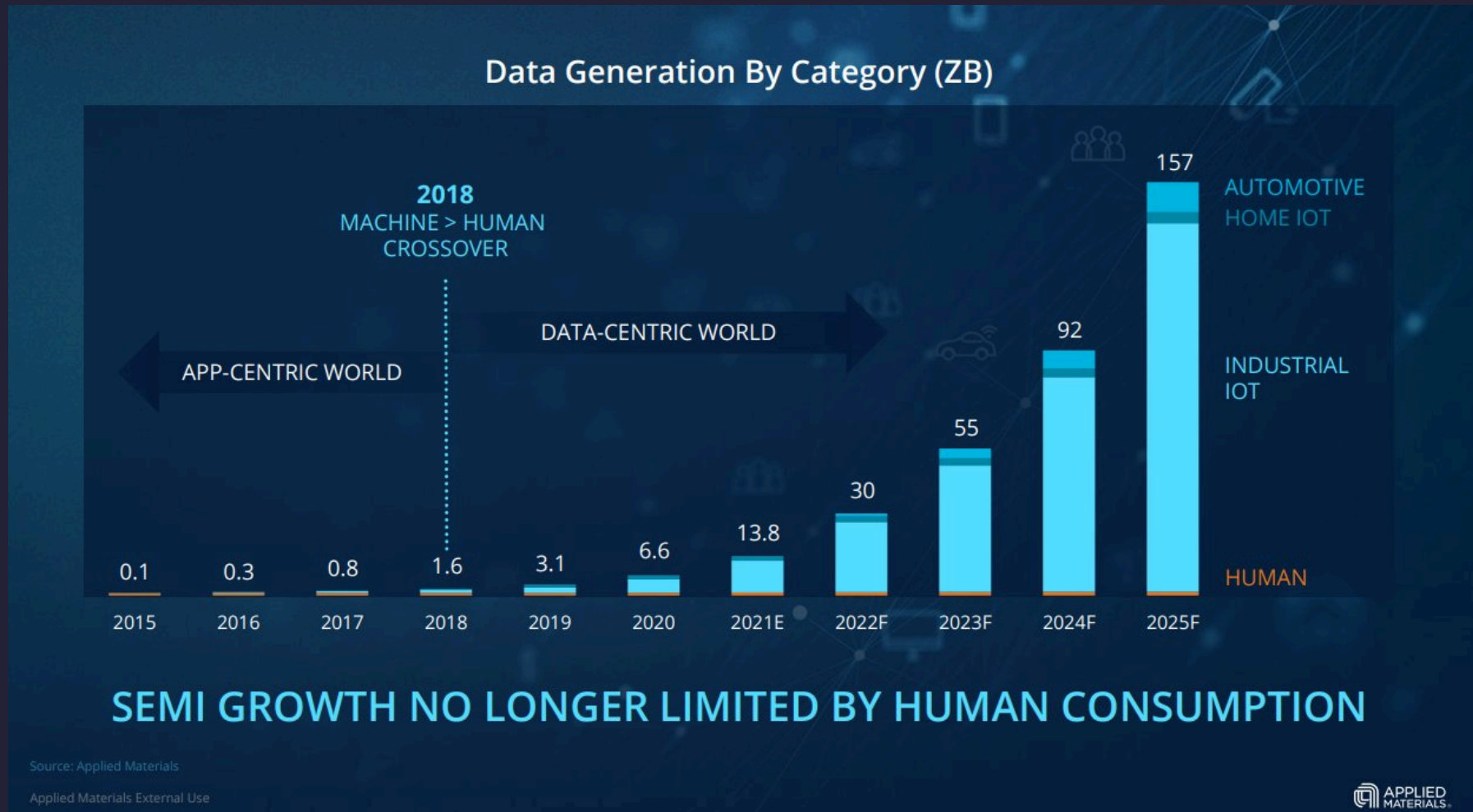
by Thomas H. Davenport and DJ Patil

July 15, 2022

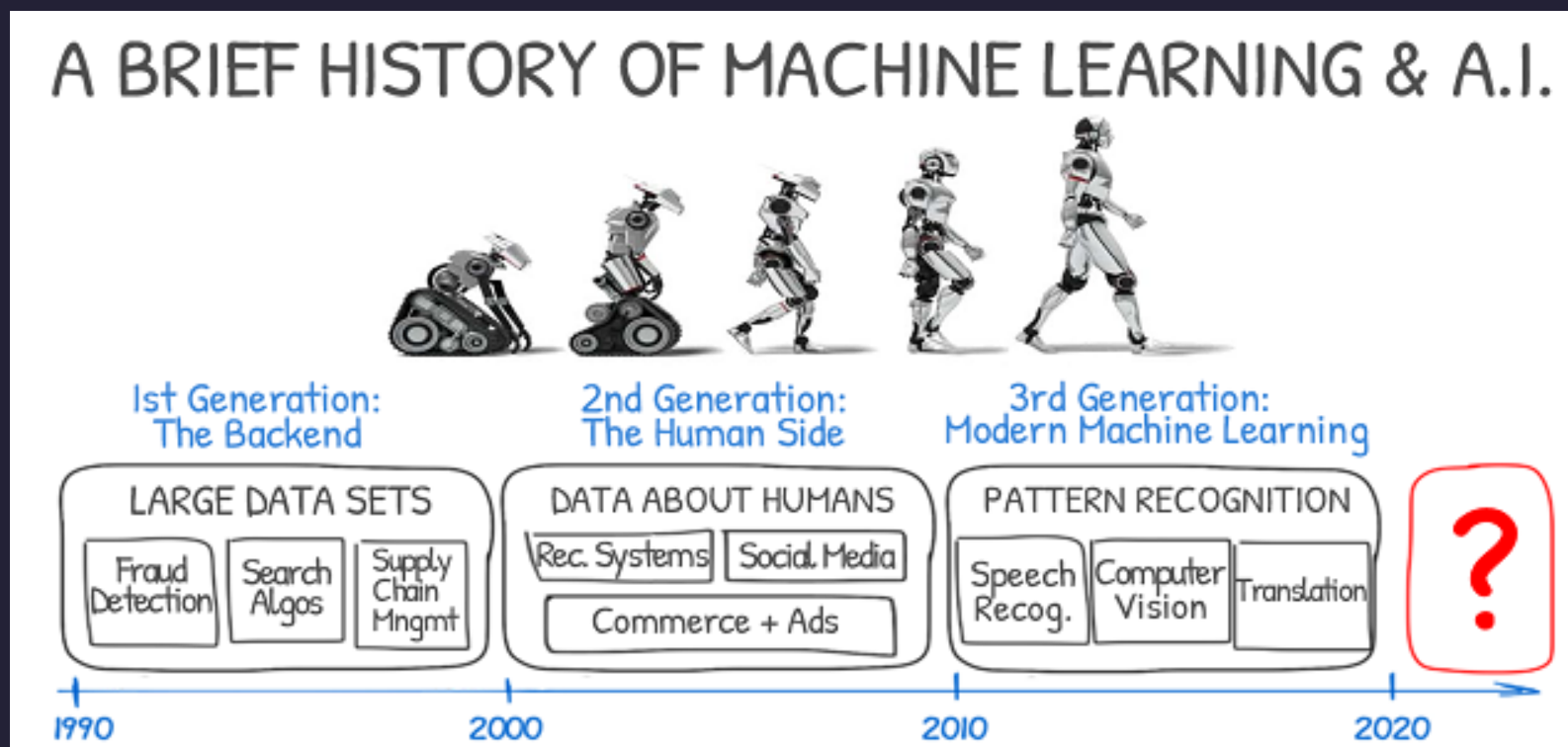
<https://hbr.org/2012/10/data-scientist-the-sexiest-job-of-the-21st-century>

<https://hbr.org/2022/07/is-data-scientist-still-the-sexiest-job-of-the-21st-century>

Data is everywhere



Data is the new oil



<https://medium.com/@ODSC/the-history-and-future-of-ai-with-michael-i-jordan-85f9962ff139>

https://ana.blogs.com/maestros/2006/11/data_is_the_new.html

How Target Figured Out A Teen Girl Was Pregnant Before Her Father Did



Kashmir Hill Former Staff

Tech

Welcome to The Not-So Private Parts where technology & privacy collide

 This article is more than 8 years old.

Every time you go shopping, you share intimate details about your consumption patterns with retailers. And many of those retailers are studying those details to figure out what you like, what you need, and which coupons are most likely to make you happy.

Target, for example, has figured out how to data-mine its way into your womb, to figure out whether you have a baby on the way long before you need to start buying diapers.

Charles Duhigg outlines in the [New York Times](#) how Target tries to hook parents-to-



TARGET

Target has got you in its aim

Target **ed** Ad

- estimated "pregnancy score" based on purchase pattern
- sent coupons along the different stages of pregnancy

<https://www.forbes.com/sites/kashmirhill/2012/02/16/how-target-figured-out-a-teen-girl-was-pregnant-before-her-father-did/#6298ff1e6668>



AI recruiter

<https://www.youtube.com/embed/8QEK7B9GUhM>

<https://www.economist.com/business/2013/04/06/robot-recruiters>

Spatial Finance

Brokerage

HOW SATELLITE IMAGERY IS HELPING HEDGE FUNDS OUTPERFORM

June 26, 2020

**How hedge funds use drones, satellite images
and web scraping to gain an edge**



By [Matt Egan](#), CNN Business

Published 4:33 PM EDT, Wed July 10, 2019



Course objective

- Understand and apply fundamental programming concepts in Python.
- Utilize Python libraries to read and manipulate data.
- Perform basic data cleaning, wrangling, and analysis tasks.
- Use SQL for managing data in relational databases.
- Implement an end-to-end Extract-Transform-Load (ETL) pipeline.



Extract

Retrieves and verifies data
from various sources



Transform

Processes and organizes
extracted data so it is usable



Load

Moves transformed data
to a data repository

Module 1 - Fundamentals of programming in Python

Module 2 - Data Manipulation in SQL

Module 3 - Extract-Transform-Load (ETL) using Python and SQL

Logistics

Course website: <https://insy336.github.io/{section number}>

- Section 001: <https://insy336.github.io/001>
- Section 002: <https://insy336.github.io/002>

MyCourses: for grades

Questions

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

Tools

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

Coursework

- In-Class Exercise (ungraded)
- Take-Home Exercise
- Assignment
- Quiz
- Exam

Grading policy

Component	Weight (%)
Participation	5
Take-Home Exercise	10
Assignment	25
Quiz	30
Exam	30

- 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?