# Welcome to Decision Analysis

60615A

#### Outline

- Introductions
- General Decision Analysis introduction
- Zone Cours overview: course contents, assignments
- Sensitivity Analysis

### A little bit about myself

- HEC, Department of Decision Sciences
- MIT faculty: 2010-2020
- PhD Mathematics, EPFL, Switzerland
- MSc. Statistics, University College London
- Bachelor Applied Mathematics & Computer Science, ENSIMAG, France
- Operations Research: mathematical modeling and optimization
- Urban mobility and transportation problems: simulation-based optimization, probabilistic modeling

# Collaborators & Sponsors



- Holder of the Scale Al Chair in Scale Al Research Chair in Artificial Intelligence for Urban Mobility and Logistics
- Staff Research Scientist at Google Research
- Past affiliations include: Visiting Faculty at Google Maps; Consultant at Alphabet company Sidewalk Labs

#### Introductions

- Your name
- Your program and year at HEC
- Your academic and professional background
- Your academic and professional interests
- Why you are taking this class
- Mention a hard decision you have had to make

## Grading

- Assignment 1: 2%
- Assignment 2: 3%
- Assignment 3: 12%
- Assignment 4: 6%
- Assignment 5: 7%
- Mid-term exam: 30%
- Final exam: 40%

#### Important dates

- All assignments / exams: Use of generative Al is prohibited.
- Assignments:
  - Upload digital version in pdf format.
  - Verify digital version is legible and contains all your responses.
  - Clearly explain your reasoning, detail your answers.
  - Upload prior to the start of that day's session (i.e., before 12pm).
- Assignment due dates:
  - 1. Sept. 19 (session #4)
  - 2. Sept. 26 (session #5)
  - 3. Oct. 10 (session #7)
  - 4. Nov. 21 (session #11)
  - 5. Nov. 27 (one day before session #12)

### Important dates

- Mid-term exam: Oct. 26, 9am-12pm
- Final exam: Dec. 10, 1:30-4:30pm
- Use final date and time displayed in HEC en ligne

# Class logistics

- Office hours
  - My office hours: Fridays 3-4pm. Confirm attendance the day before.
- Synchronous session will also be available in real-time over Zoom (connect through ZoneCours)
- Class logistics inputs: wooclap.com/ULPZXE

#### After class

- Create a group of 3 students
- (optional) Probability review: session 0
- Start working on assignment 1
- Watch 2 videos of 'Session 1' on Studio Yuja
- Install software for session 3
- Fill out anonymous survey before Thursday:
  - Link is available on Zone Course Session 1