Photo by Markus Winkler on Unsplash

1. Introduction

WelcomeBike Bike Rentals is a Beijing-based bike rental company that has recently expanded to include a handful of US locations. You've been asked to build a neural network that will predict the number of bike rentals for a given day and hour for their Washington DC branch. [1]

2. Stakeholders

These are the individuals your team will be helping during the case study:

ZHAO, CEO OF WELCOMEBIKE

66 Our new DC branch is taking off again after COVID-19. I'm excited to see how machine learning can help us to avoid the mistakes of our competitors and prove to our investors that we have a winning business model.

WILLIAM, INVESTMENT BANKER

66 Oh...it's *you* again.

Nearly every Chinese bike rental business anyone has invested in has gone bankrupt.

Mr. Zhao seems to think that AI can make all the difference, and our bank's investment board is curious to find out if he's right.

I'm here by their request to witness his failure— I mean, to see how it goes.

JOHNNY, DATA SCIENCE INTERN

> ❝ Hey, small world!

I'm visiting my grandma Peggy in Langley, Virginia and thought I'd stop by the capital and see how you're doing.

ℹ STAKEHOLDER FOCUS AREAS

The stakeholders are particularly interested in the following areas:

1. Building a neural network that can predict the number of bicycle rentals for a given day.
2. Understanding how weather, holidays, and other factors affect revenue.

You've been invited to a strategy meeting tomorrow.

DATA
- [Bike Data](#)
- [Data Dictionary](#)

READING
- Don't forget to go back and review the ["Practical" section of the reading assignment](#) to understand how to build neural networks.

You can use the following Google Colab notebook to assist you:

[CO Open in Colab]

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1. For a fascinating look at the bike rental industry in China, see this article in Foreign Policy and this article in The Atlantic ↵

2. CEO photo by Sung Wang on Unsplash ↵

3. Investment Banker photo by steffen Wienberg on Unsplash ↵

4. Data Science Intern photo by Fábio Lucas on Unsplash ↵