# What is Data Science?

# Ahmad Zaky Syihan



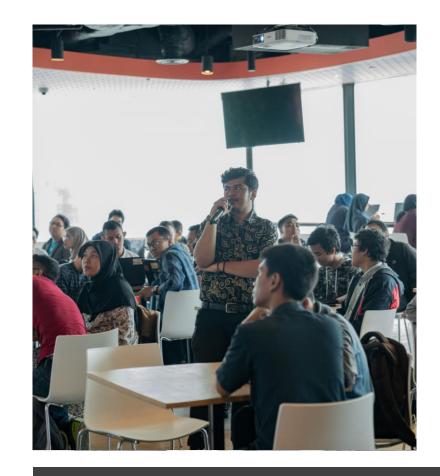


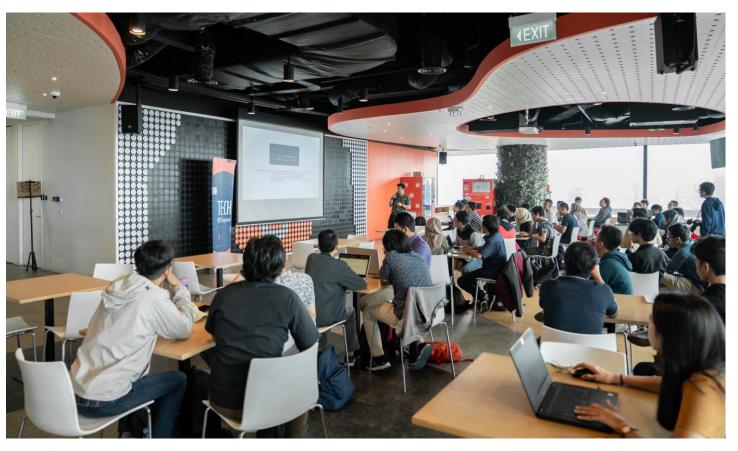
UMN Artificial Intelligence Lab Instructor





Unilever Power BI Training Instructor





Shopee National Data Science Competition





Co-Founder Zaky Syihan

Researcher and Data Science Instructor



#### {What can we do}



#### **Face Recognition**

Deteksi wajah secara realtime



#### Object Counting

Melakukan object counting secara



#### **Optical Character Recognition**

Deteksi dan ekstraksi dokumen, text, id card dan lain-lain



#### Object Detection

Deteksi dan klasifikasi object secara



#### **Image Classification**

Klasifikasi image berdasarkan label yang sudah ditentukan





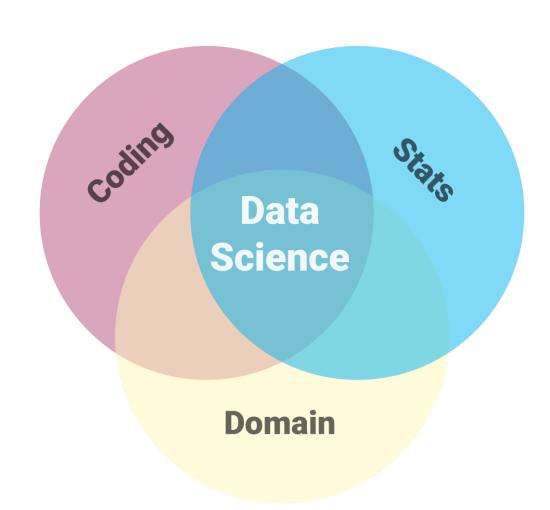
berbagai metode machine learning

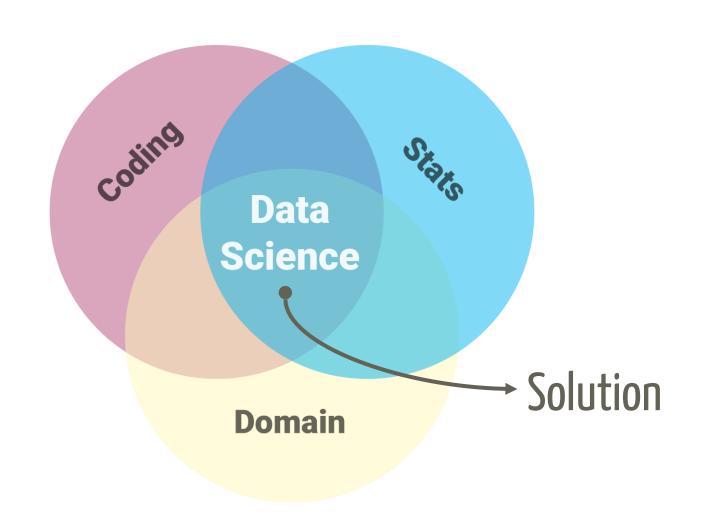




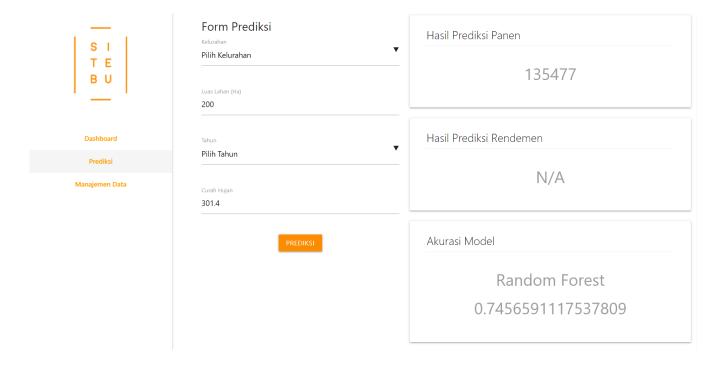
Scraping dan collecting data menjadi data yang siap digunakan

# What is Data Science?





### Solution



#### Solution

#### **Hate Speech Detector**

Test your sentence

Raka hobi gombalin istri orang

Predict

#### **Hate Speech Detector**

Test your sentence

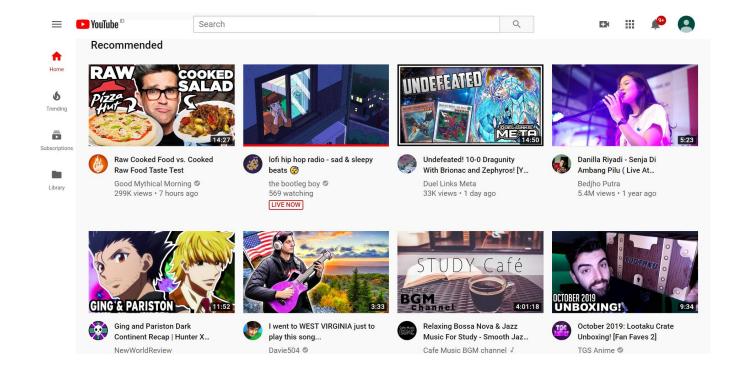
Raka hobi gombalin istri sendiri

Predict

HS

Non\_HS

#### Solution

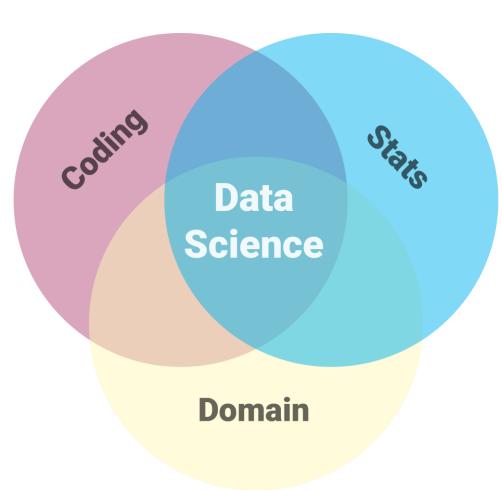


## Awesome! How to make it tho?



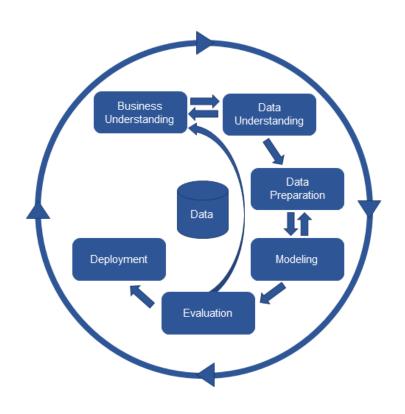
We Need Data!

### And Skills!



## And Workflow!

### CRoss-Industry Standard Process for Data Mining



# Let's Start!

# Data Gathering

### Data Storage



### Other Sources

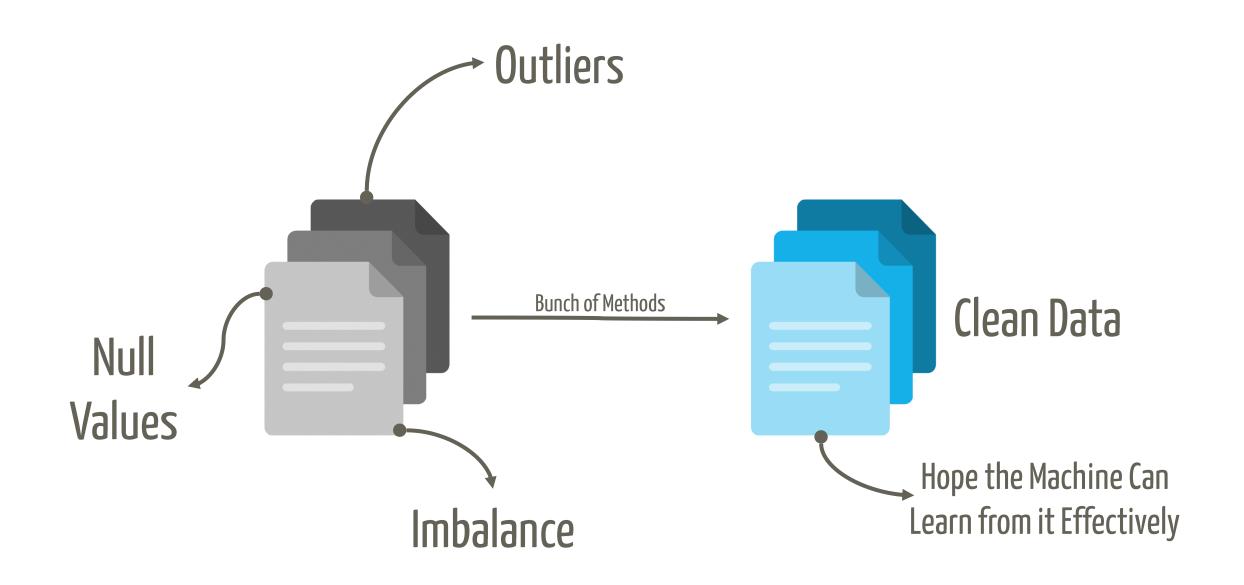


# Must Aligned with the Problems!

# Data Exploration

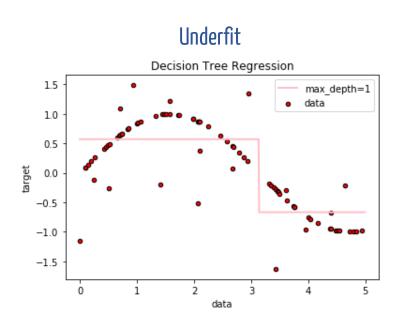


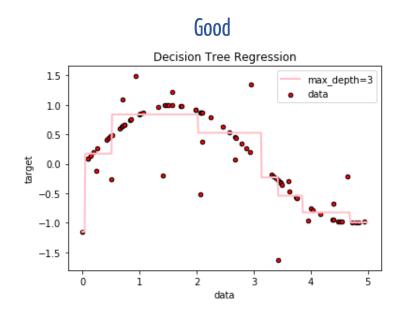
# Data Preprocessing

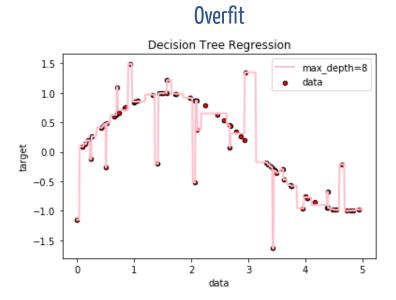


# Data Modelling

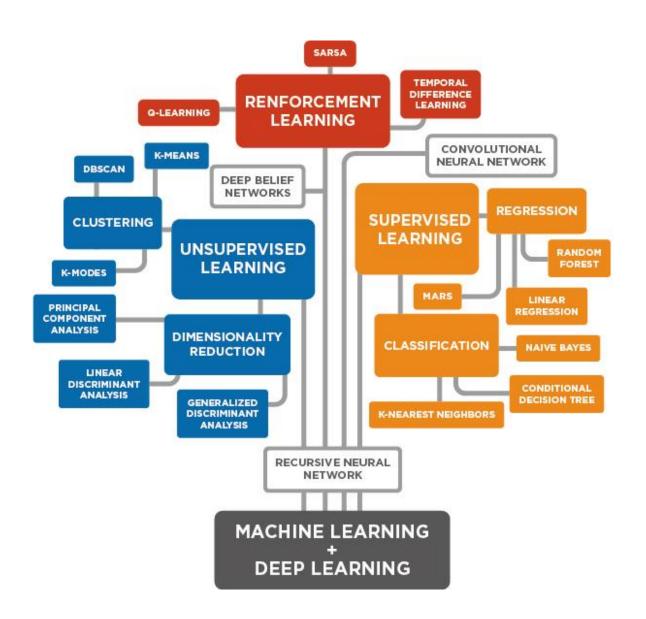
### Create a Model That Fit 'Nicely' to the Data



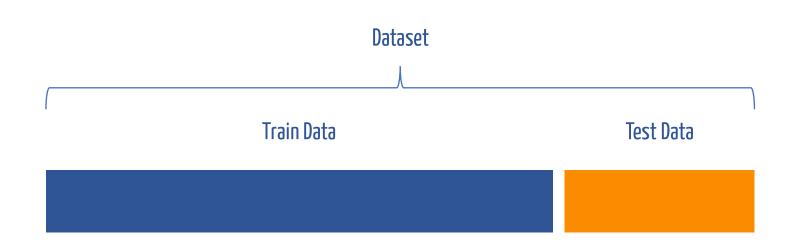


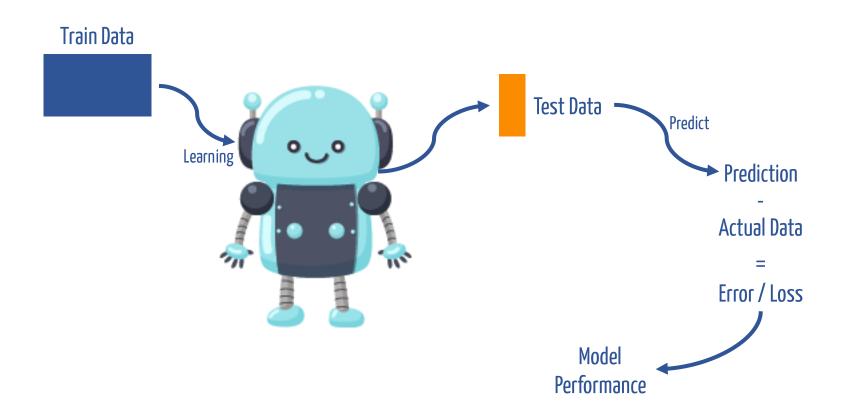


## What Model?



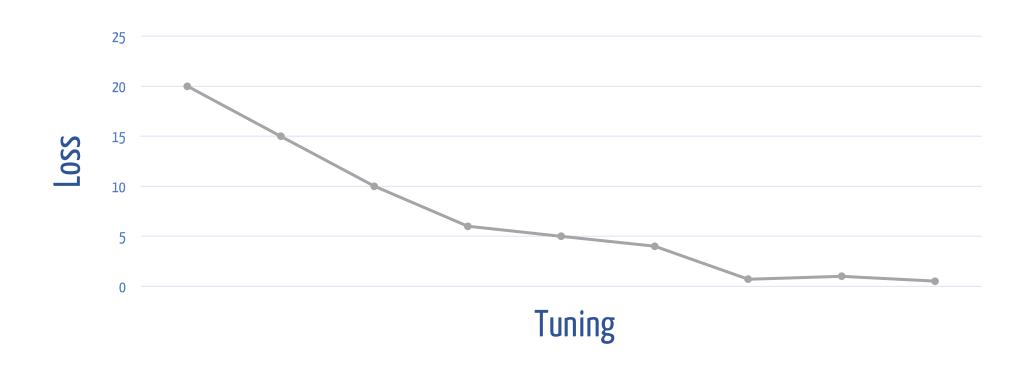
## Model Validation



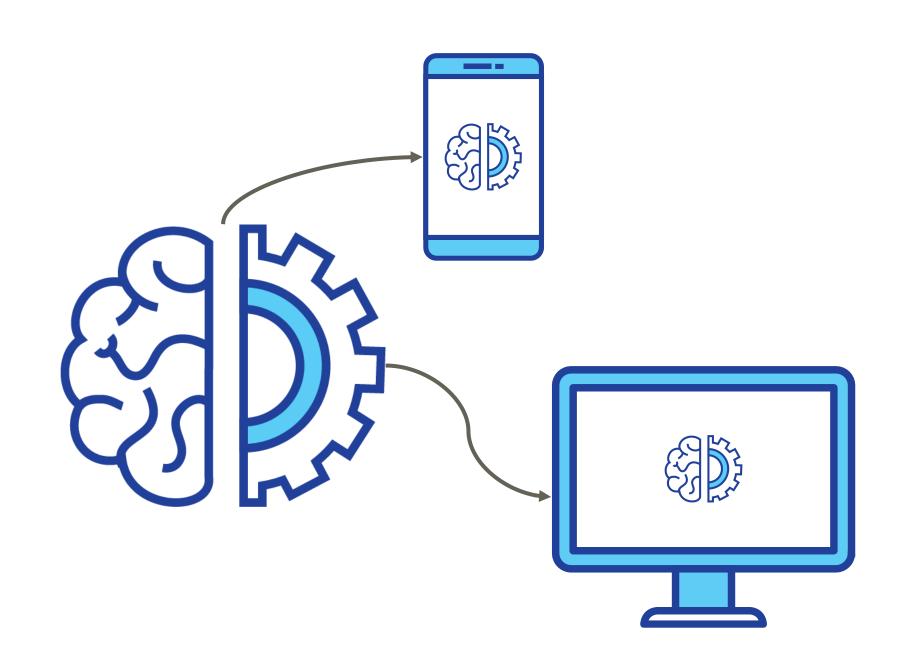


# Model Optimization

### Increase model performance



# Model Deployment



# Let's Code!

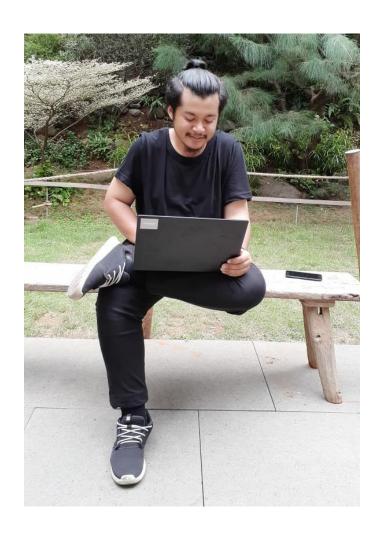
# Bonus Tips!

#### For learners

- Do a lot of experiments
- Copy other people's work (and try to understand it of course...)
- Mastering data science workflow is a must
- Learn exploratory data analysis
- Learn maths (lol trust me on this)

# That's all folks!

### Always Share Your Knowledge!



## Contact Me

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