



Warodom Khamphanchai, PhD

- LEAD SMART HOME/BUILDING PLATFORM DEVELOPER @ PEA
- EX-SOFTWARE DEVELOPMENT ENGINEER @ SAMSUNG SMARTTHINGS

Interests: Home/Building Automation, Internet of Things, Smart Grid, Multi-Agent systems, Data Analytics, Machine Learning, Deep Learning, AI, Energy Audit, and Technology Entrepreneurship.

Education:

- [2011-2016] Ph.D. in Electrical and Computer Engineering,
Virginia Tech

Dissertation: An Agent-based Platform for Demand Response Implementation in Smart Buildings

- [2009-2011] M.E. in Energy (Area of Specialization: Electric Power System Management), Asian Institute of Technology
Thesis: A Multi-Agent Based Power System Restoration

Approach in Distributed Smart Grid

- [2005-2009] B.E. in Electrical Engineering, Chulalongkorn University



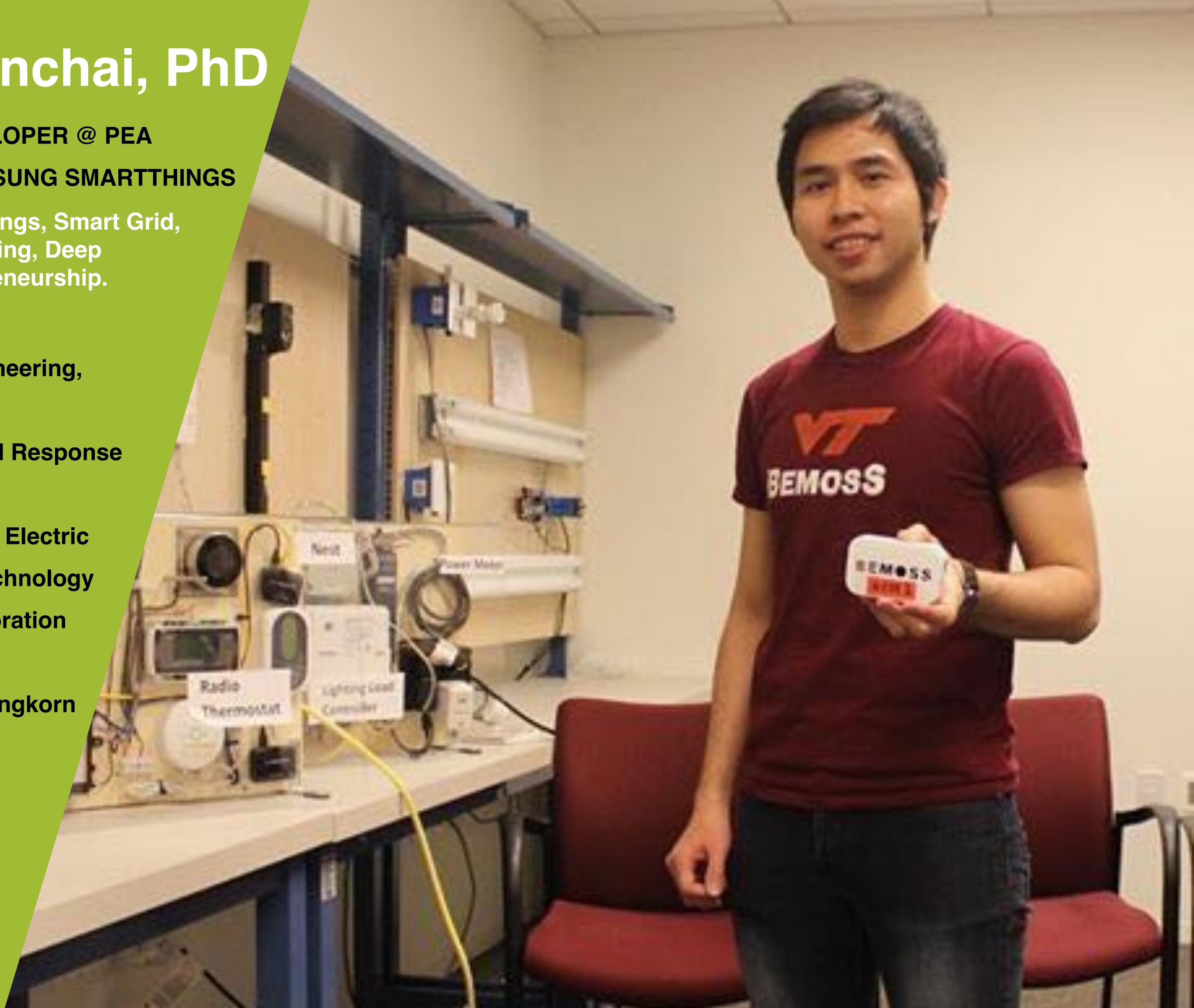
Line: kwarodom

LinkedIn: www.linkedin.com/in/kwarodom

Web: kwarodom.wordpress.com

Email: kwardom@vt.edu

Tel: +6695-161-5011 Github: kwarodom



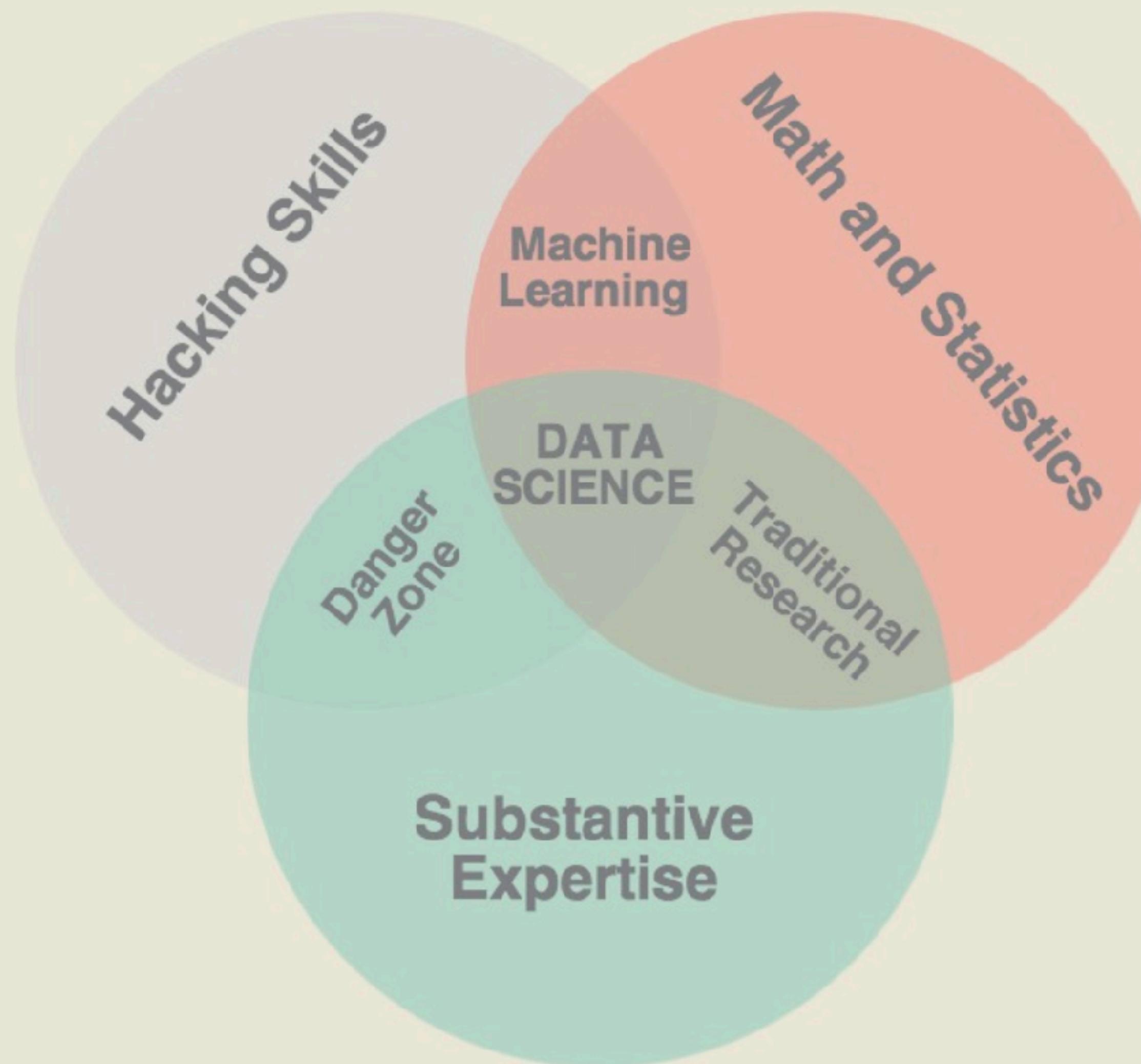


Profile

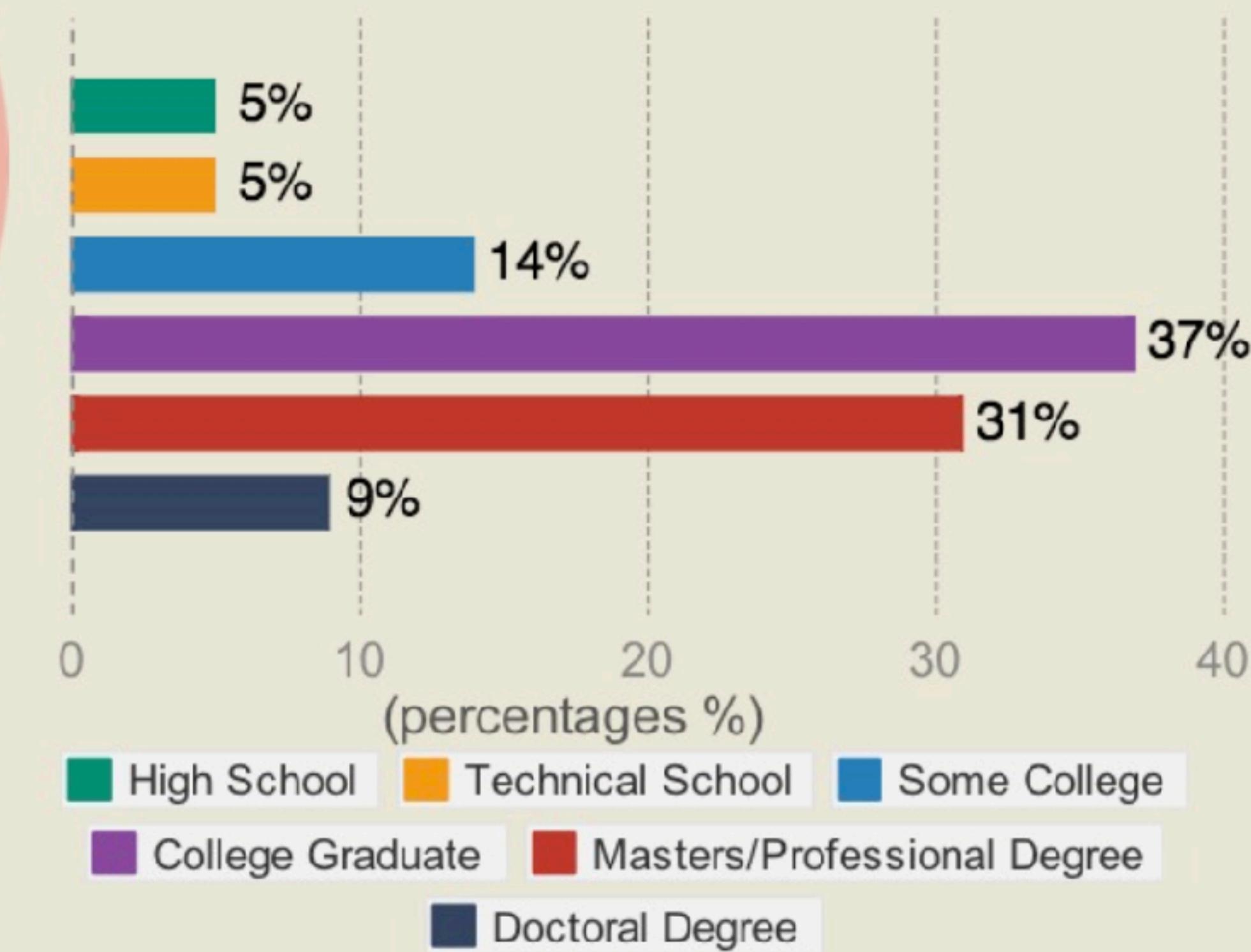
Sorawit Saengkyongam (James)

- Data Scientist at Agoda where he works on research and development of personalization algorithms and recommendation systems
- Google Developer Expert in Machine Learning.
- Organize Bangkok Machine Learning Meetup
- Graduated with a major in Mathematical Statistics from Chulalongkorn University (with first class honours)

What's a data scientist?



Typical Background



A data scientist is someone who is better at statistics than any software engineer and better at software engineering than any statistician.

Gareth James
Daniela Witten
Trevor Hastie
Robert Tibshirani

An Introduction to Statistical Learning

with Applications in R



□ Programming

- R programming language
- Python programming language
- Spreadsheet tools (like Excel)
- JavaScript and HTML
- C/C++

□ Statistics

- Descriptive and Inferential statistics
- Experimental design

□ Mathematics

- College Algebra
- Functions and Graphing
- Multivariable Calculus
- Linear Algebra

□ Machine Learning

- Supervised Learning
- Unsupervised Learning
- Reinforcement Learning

□ Data Wrangling

- Python
- Database Systems
- SQL

□ Communication and Data Visualization

- Visual Encoding
- Data Presentation
- Knowing Your Audience

□ Data Intuition (Thinking like a data scientist)

- Project Management
- Industry Knowledge

05

07

09

10

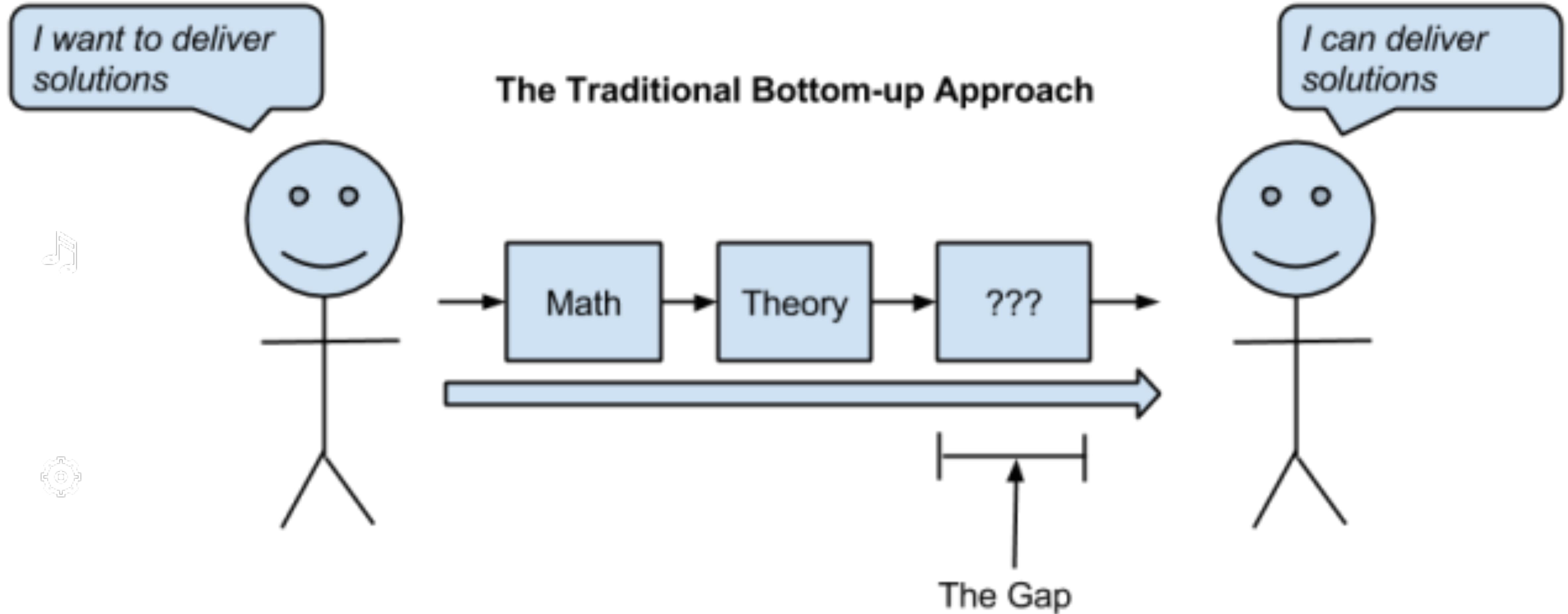
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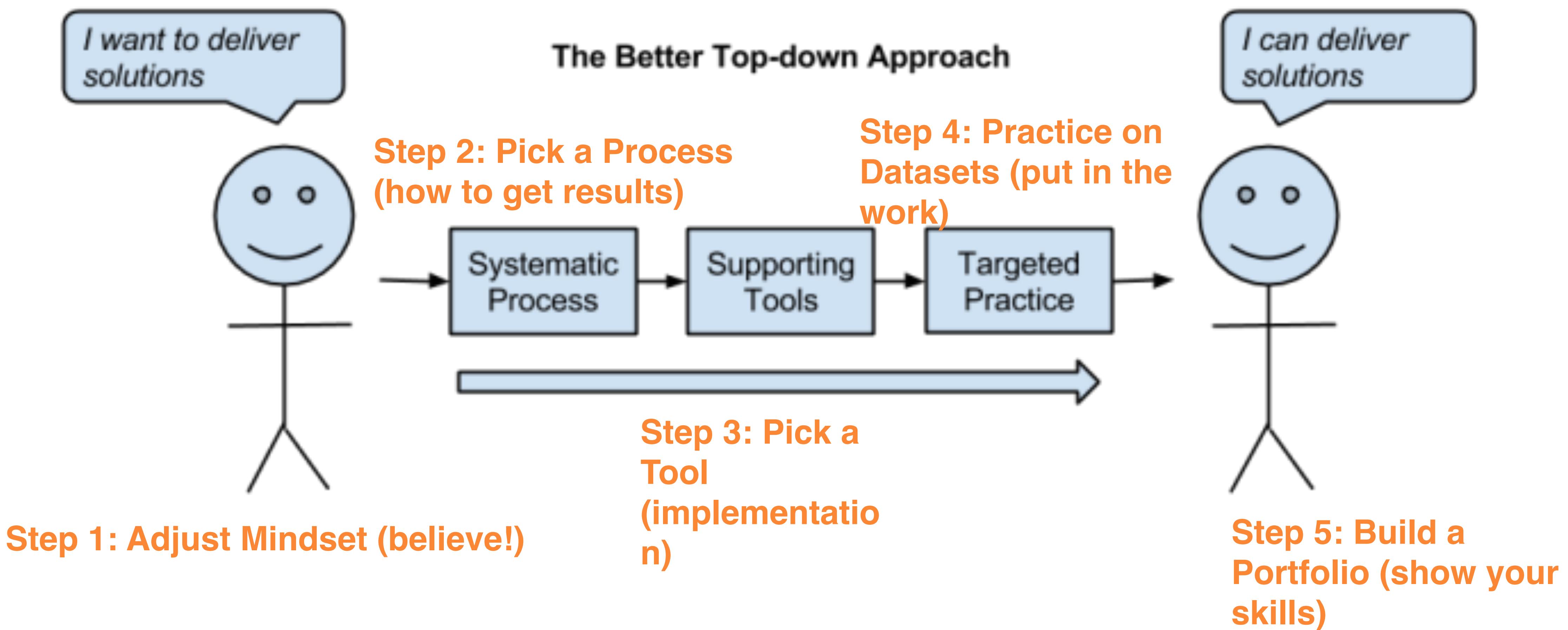
MACHINE LEARNING PRACTITIONER





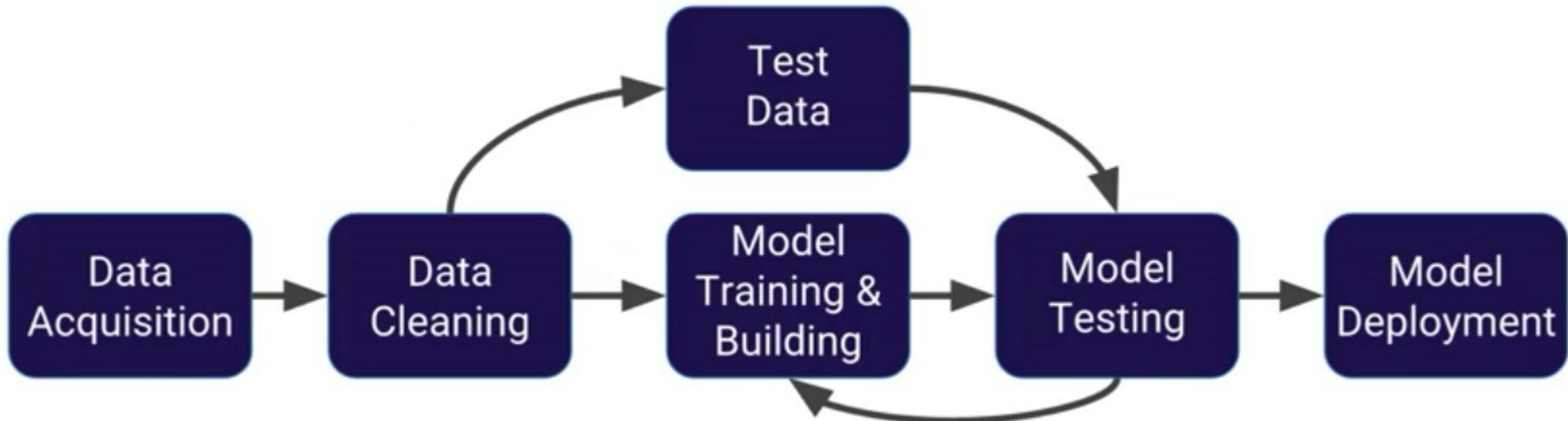
MACHINE LEARNING PRACTITIONER

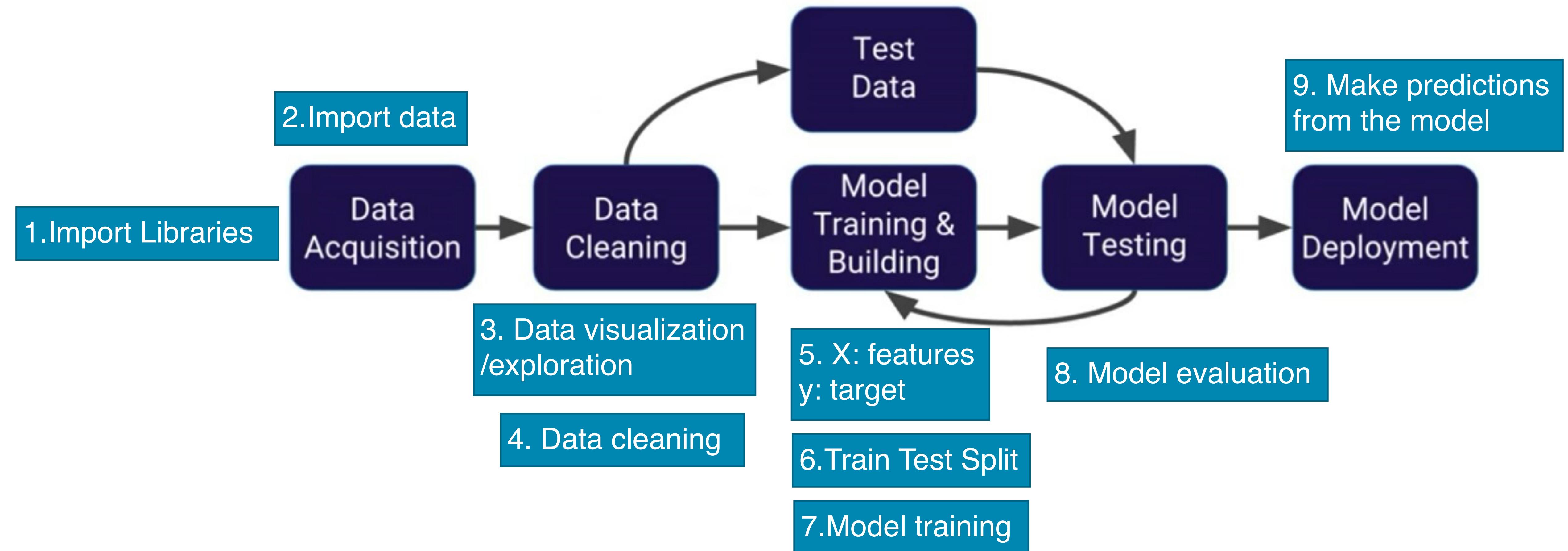
5-Steps To Get Started and Get Good at Machine Learning





MACHINE LEARNING PROCESS





Regression

Hypothesis:

$$h_{\theta}(x) = \theta_0 + \theta_1 x$$

Parameters:

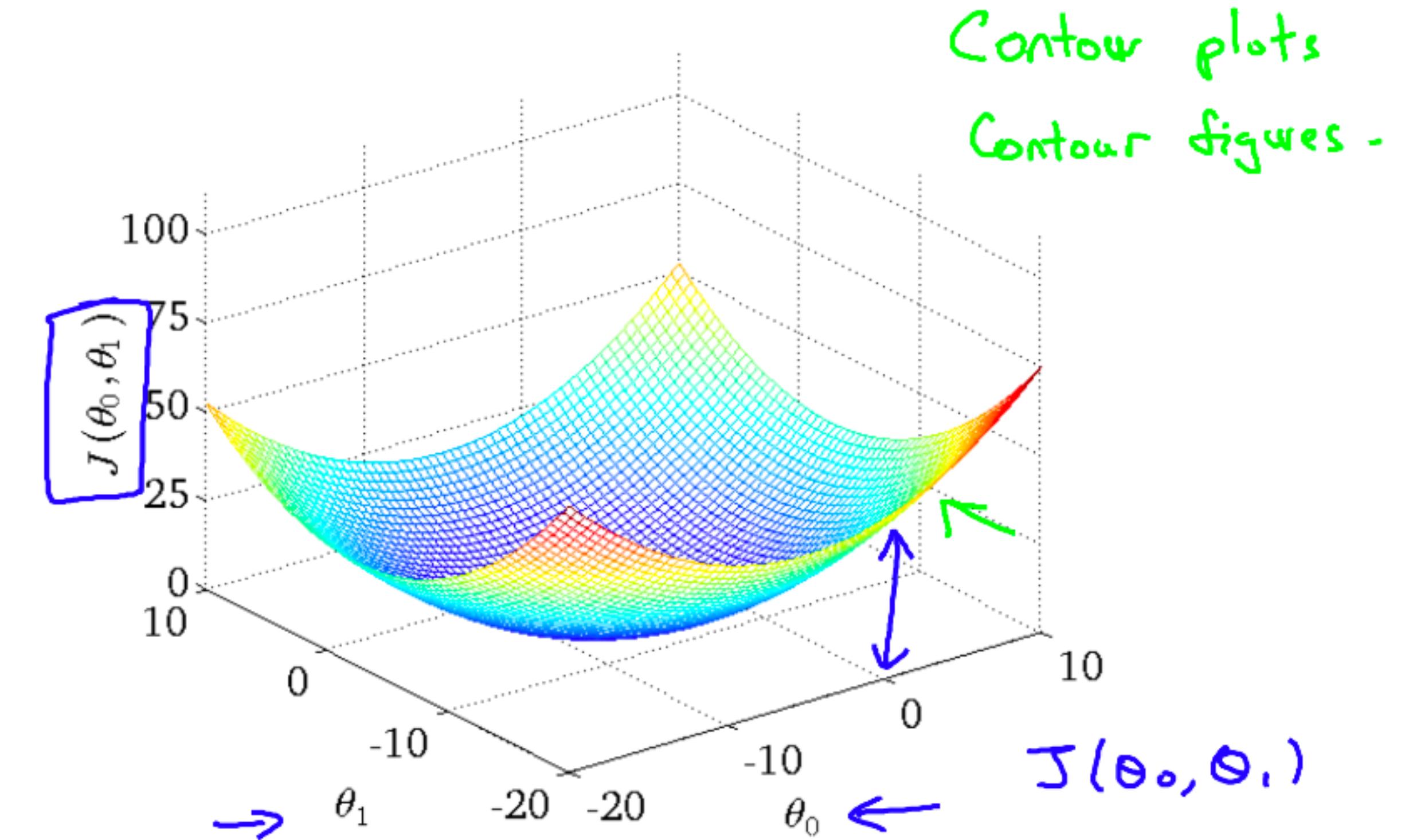
$$\underline{\theta_0, \theta_1}$$

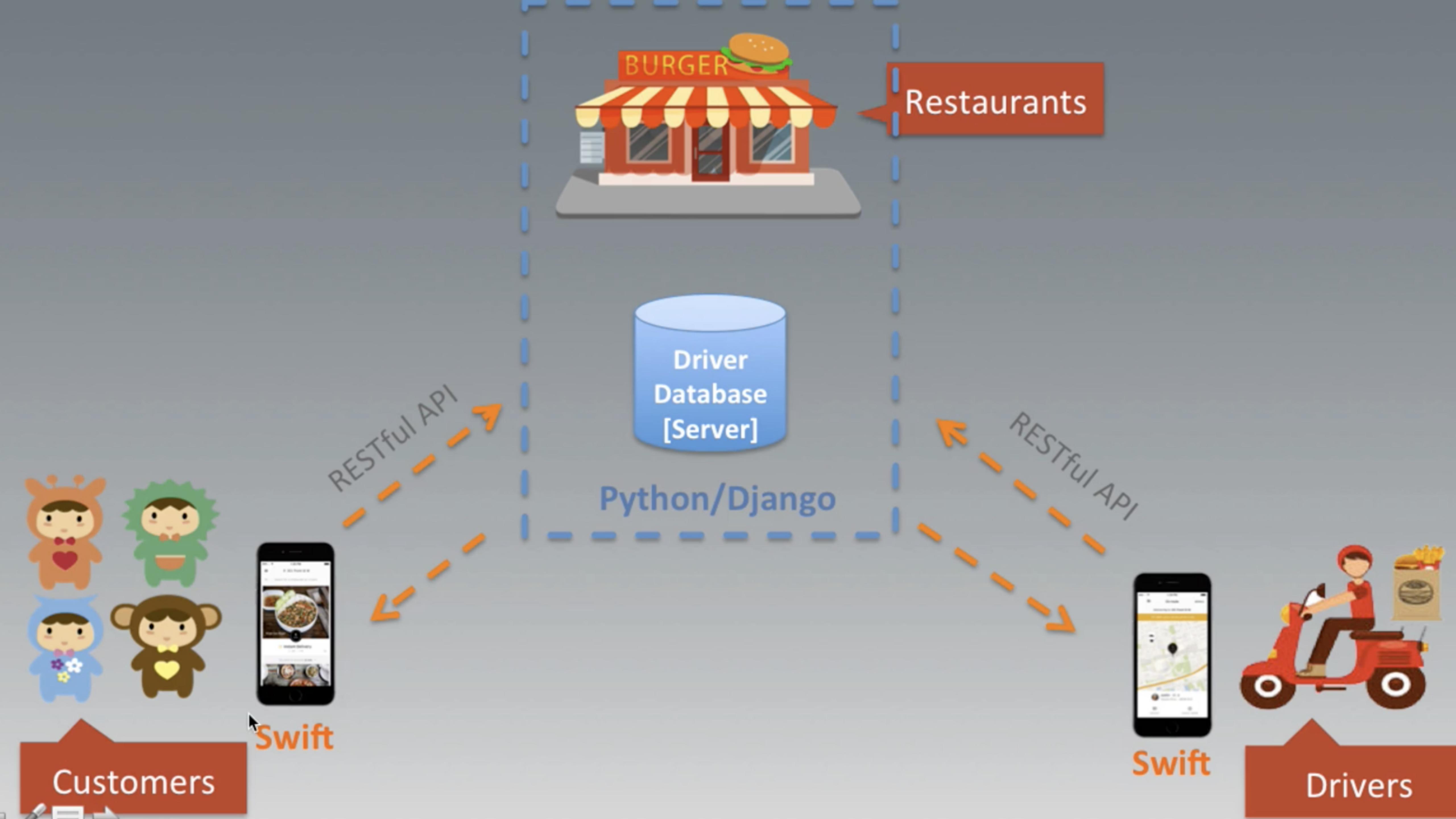
Cost Function:

$$J(\theta_0, \theta_1) = \frac{1}{2m} \sum_{i=1}^m (h_{\theta}(x^{(i)}) - y^{(i)})^2$$

Goal:

$$\underset{\theta_0, \theta_1}{\text{minimize}} J(\theta_0, \theta_1)$$





SO, WHAT IF I WANT TO LEARN HOW TO BUILD DATA

Code4Startup



lynda.com

Udemy

treehouse™

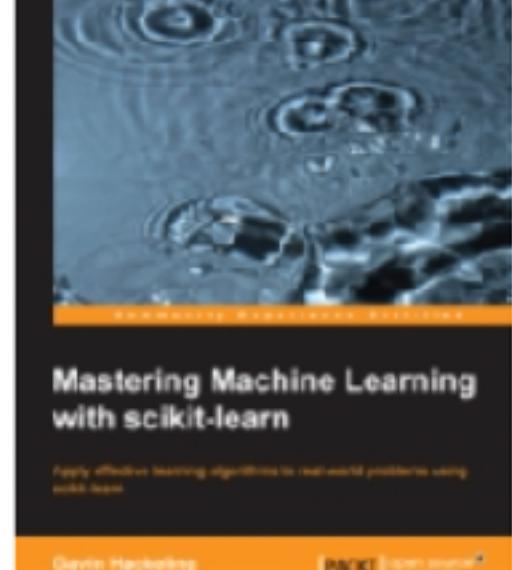
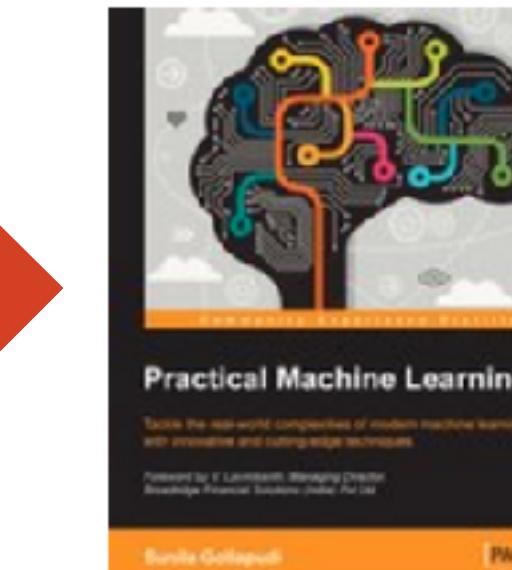
One Month



coursera

Code School
a Pluralsight company

codecademy



CHALLENGE YOURSELF WITH REAL-WORLD ML

kaggle

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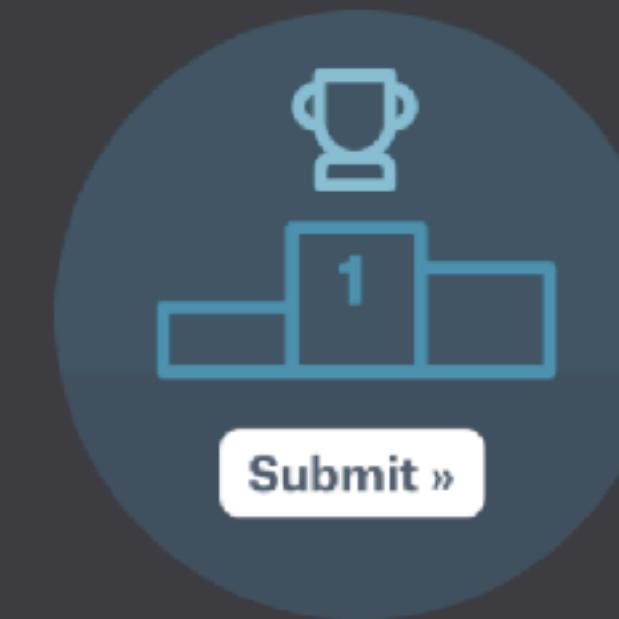
New to Data Science?

Get started with a tutorial on our most popular competition for beginners, [Titanic: Machine Learning from Disaster](#).



Build a Model

Get the data & use whatever tools or methods you prefer to make predictions.



Make a Submission

Upload your prediction file for real-time scoring & a spot on the leaderboard.