### Python for Data Science An Introduction

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Jurusan Matematika FMIPA Udayana May 8, 2023

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#### Data Science (DS) is The Sexiest Job

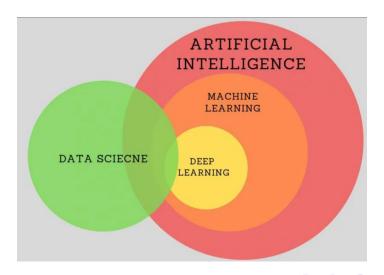
**Analytics And Data Science** 

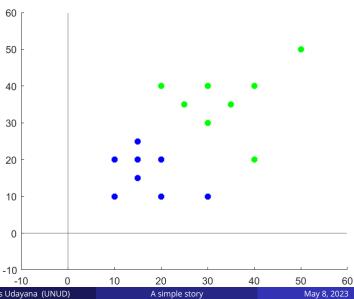
# Data Scientist: The Sexiest Job of the 21st Century

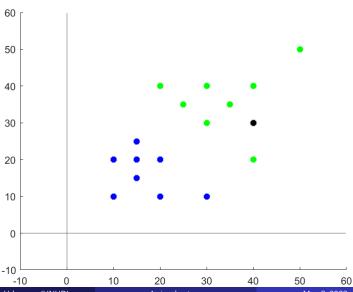
Meet the people who can coax treasure out of messy, unstructured data. by Thomas H. Davenport and DJ Patil

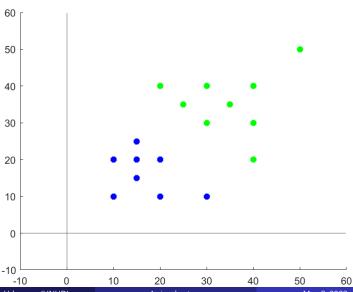
From the Magazine (October 2012)

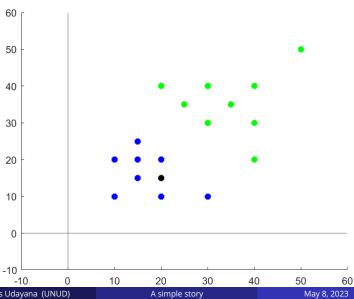
## Artificial Intelegent (AI) vs Machine Learning (ML) vs Data Science (DS)

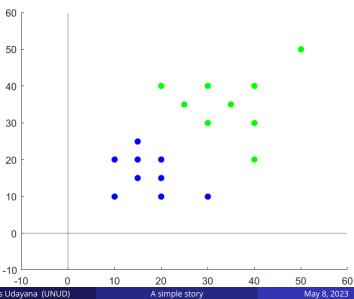


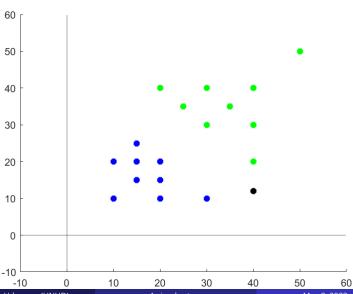


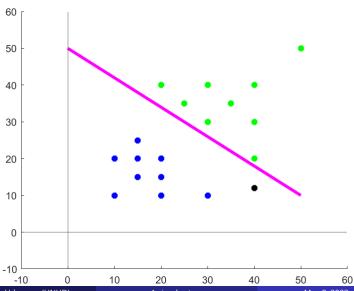


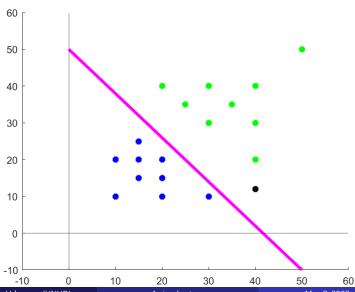


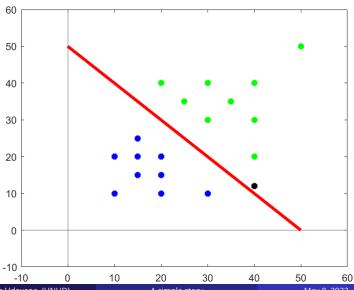


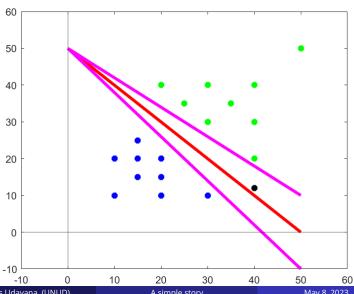




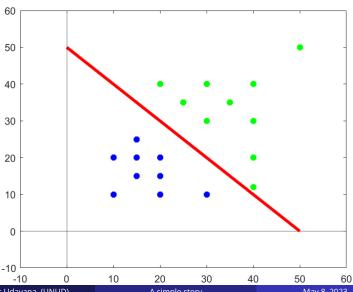


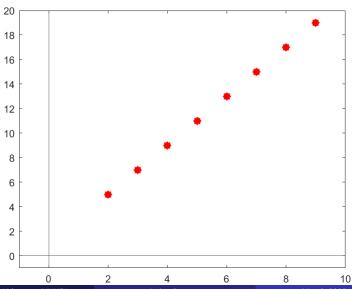


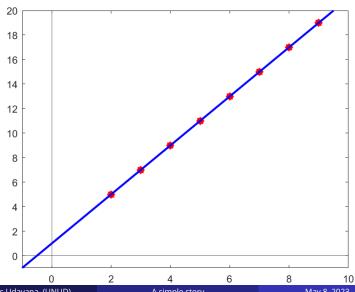


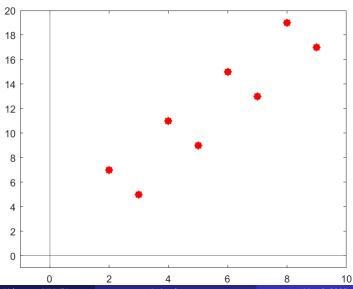


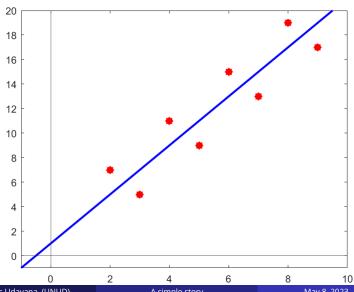
#### Support Vector Machine (SVM)

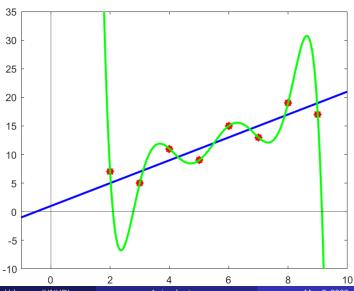




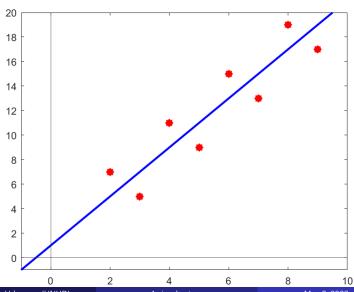


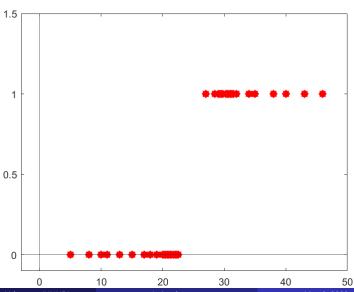


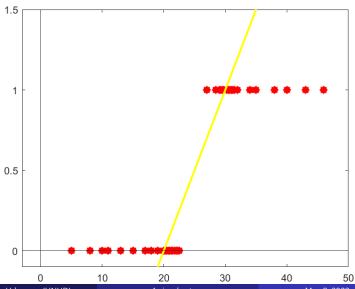


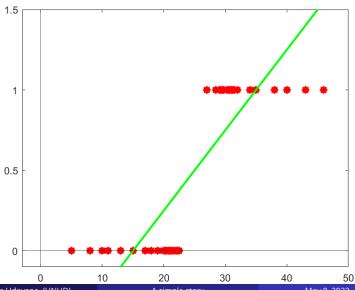


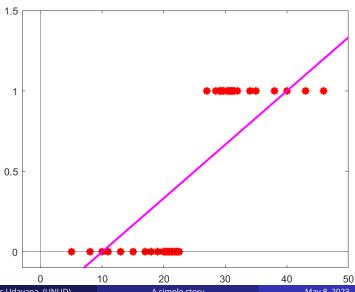
#### Regresi Linier

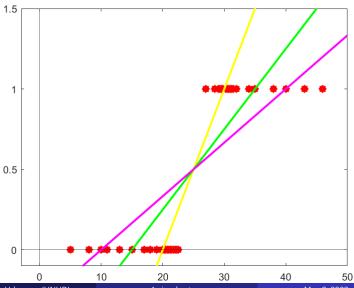


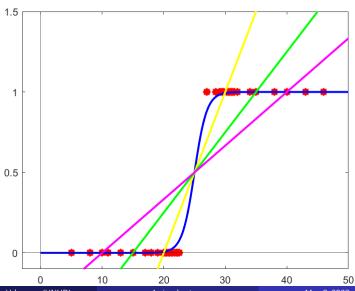




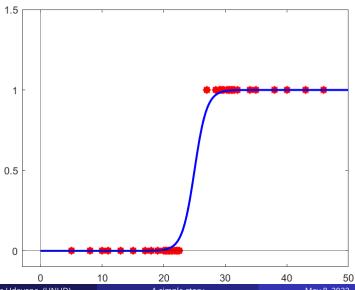








#### Regresi Logistik



#### Regresi Logistik

Transformasi y = mx + c ke

$$\ln\left(\frac{y}{1-y}\right) = mx + c$$

$$\frac{y}{1-y} = e^{mx+c}$$

$$y = (1-y)e^{mx+c}$$

$$y(1+e^{mx+c}) = e^{mx+c}$$

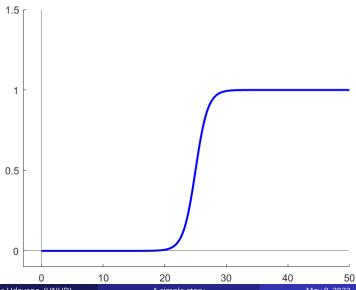
$$y = \frac{e^{mx+c}}{1+e^{mx+c}}$$

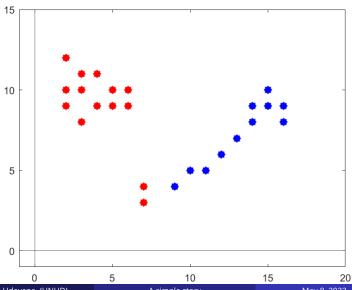
$$y = \frac{1}{1+e^{-(mx+c)}}$$

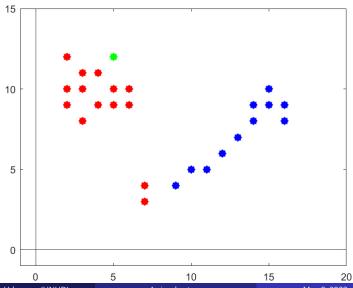
Fungsi Sigmoid:

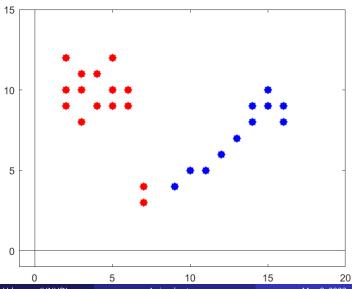
$$y(x) = \frac{1}{1 + e^{-x}}$$

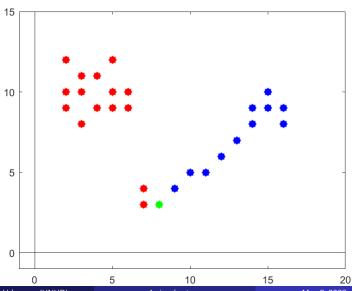
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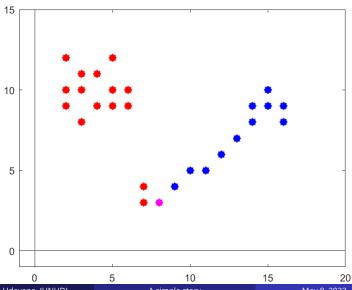


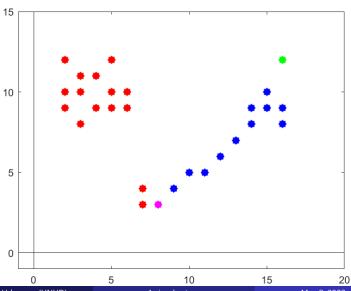












#### k-Nearest Neighbors (KNN)

