

# MACHINE LEARNING



# The A Team

Machine Learning

Group 9

Introduction

Regression

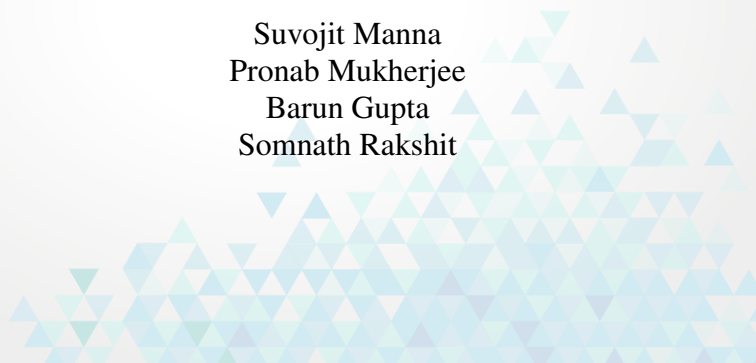
Classifications

Deep Learning

Conclusion

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# Contents in Brief

Machine Learning

Group 9

Introduction

Regression

Classifications

Deep Learning

Conclusion

**1** Introduction

**2** Regression

**3** Classifications

**4** Deep Learning

**5** Conclusion



Let's Get Started

# Machine Learning — What ?

Machine Learning

Group 9

## Introduction

Case Studies

Formal Definition

Benefits

Applications

## Regression

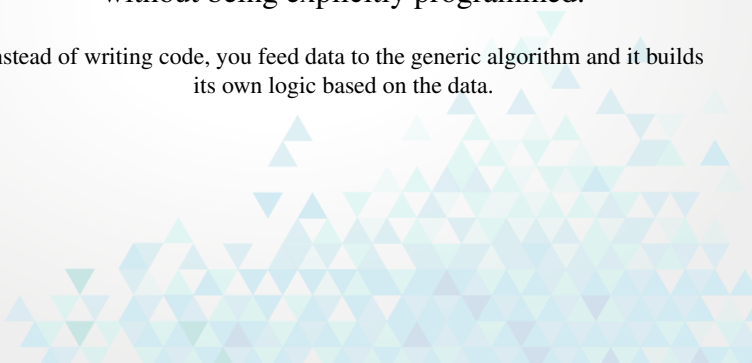
## Classifications

## Deep Learning

## Conclusion

Field of study that gives computers the ability to learn without being explicitly programmed.

Instead of writing code, you feed data to the generic algorithm and it builds its own logic based on the data.



# Case Studies — Machine Learning

Machine Learning

Group 9

Introduction

Case Studies

Formal Definition

Benefits

Applications

Regression

Classifications

Deep Learning

Conclusion



# Machine Learning — Formal Definiton

Machine Learning

Group 9

Introduction

Case Studies

Formal Definition

Benefits

Applications

Regression

Classifications

Deep Learning

Conclusion

The field of machine learning is concerned with the question of how to construct computer programs that automatically improve with experience.

A computer program is said to learn from experience  $E$  with respect to some class of tasks  $T$  and performance measure  $P$ , if its performance at tasks in  $T$ , as measured by  $P$ , improves with experience  $E$ .

Evolved from :

# Benefits — Machine Learning

Machine Learning

Group 9

Introduction

Case Studies

Formal Definition

**Benefits**

Applications

Regression

Classifications

Deep Learning

Conclusion





# Applications — Machine Learning

Machine Learning

Group 9

Introduction

Case Studies

Formal Definition

Benefits

Applications

Regression

Classifications

Deep Learning

Conclusion



# Introduction — Regression

Machine Learning

Group 9

Introduction

**Regression**

Usages

Benefits

Example Cases

Classifications

Deep Learning

Conclusion



# Usages — Regression

Machine Learning

Group 9

Introduction

Regression

Usages

Benefits

Example Cases

Classifications

Deep Learning

Conclusion



# Benefits — Regression

Machine Learning

Group 9

Introduction

Regression

Usages

**Benefits**

Example Cases

Classifications

Deep Learning

Conclusion



# Example Cases — Regression

Machine Learning

Group 9

Introduction

Regression

Usages

Benefits

Example Cases

Classifications

Deep Learning

Conclusion



# Introduction — Classifications

Machine Learning

Group 9

Introduction

Regression

**Classifications**

Usages

Example Cases

Deep Learning

Conclusion



# Usages — Classifications

Machine Learning

Group 9

Introduction

Regression

Classifications

Usages

Example Cases

Deep Learning

Conclusion



# Example Cases — Classifications

Machine Learning

Group 9

Introduction

Regression

Classifications

Usages

Example Cases

Deep Learning

Conclusion





# Introduction — Deep Learning

Machine Learning

Group 9

Introduction

Regression

Classifications

**Deep Learning**

Neural Networks

Meaning

Usages

Advantages

Conclusion



# Neural Networks — Deep Learning

Machine Learning

Group 9

Introduction

Regression

Classifications

Deep Learning

Neural Networks

Meaning

Usages

Advantages

Conclusion



# Meaning — Deep Learning

Machine Learning

Group 9

Introduction

Regression

Classifications

Deep Learning

Neural Networks

**Meaning**

Usages

Advantages

Conclusion



# Usages — Deep Learning

Machine Learning

Group 9

Introduction

Regression

Classifications

Deep Learning

Neural Networks

Meaning

**Usages**

Advantages

Conclusion



# Advantages — Deep Learning

Machine Learning

Group 9

Introduction

Regression

Classifications

Deep Learning

Neural Networks

Meaning

Usages

Advantages

Conclusion



# The pain is almost over

Machine Learning

Group 9

Introduction

Regression

Classifications

Deep Learning

Conclusion



# Bibliography

Machine Learning

Group 9


Introduction

Regression

Classifications

Deep Learning

Conclusion

- Phil Simon (March 18, 2013). Too Big to Ignore: The Business Case for Big Data. Wiley. p. 89. ISBN 978-1-118-63817-0.
  - Mitchell, T. (1997). Machine Learning, McGraw Hill. ISBN 0-07-042807-7
- 

Now that was very interesting!



The End