

# Welcome IML

Cédric Buche

ENIB

6 juillet 2018

1 Topics & Challenges

2 Location

3 Teachers

4 Exams

5 Calendar

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## ▷ Machine Learning



## ▷ Applications

- ◇ Voice recognition
- ◇ Spam detection
- ◇ Stock market
- ◇ Play chess
- ◇ Self driving cars

## ▷ Machine learning

- ◇ Useful
- ◇ Looks pretty complicated
- ◇ IML : pretty easy + a lot of fun

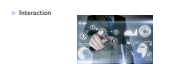
## ▷ Interaction



- ▷ Applications
  - Voice recognition
  - Spam detection
  - Stock market
  - Play chess
  - Self driving cars

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- ▷ Machine learning
  - Useful
  - Looks pretty complicated
  - IML : pretty easy + a lot of fun



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# Location



- ▷ Cédric Buche, Professor ENIB
- ▷ Mai Nguyen, Associate Professor, IMT
- ▷ Pierre De Loor, Professor, ENIB



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- ▷ Ongoing assessment + Final exam



- ▷ Calendar : <http://siaa.univ-brest.fr/w/index.php/EDT>
- ▷ Documents : <http://siaa.univ-brest.fr/w/index.php/IML>
- ▷ Contact : [buche@enib.fr](mailto:buche@enib.fr)



# Outlines

- ▷ Introduction : linear regression, polynomial regression, naive bayes, decision tree, logistic regression, neural network, SVM, HCI, IML
- ▷ Framework / Data : data preparation, frameworks, hyper-parameters, data reduction
- ▷ Detection - Prediction - Tests : clustering, classification, feature extraction, K-Fold cross validation, confusion matrix, accuracy, precision, recall, F1 Score, overfitting/underfitting
- ▷ Navigation : Mesh, Graph, videos games, GNG, SGNG
- ▷ AI Example : classification of galaxies
- ▷ Believability : Turing test
- ▷ Enactive artificial intelligence / Developmental approaches
- ▷ Interaction
- ▷ Learning by demonstration, imitation learning, interactive learning

- ▷ Deep Learning

IML

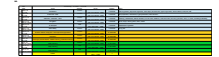
Date	Topic	Location	Prison	Teacher	Notes
Wed 5-18	Introduction	Lecture	IML course 20205 - ENIS	C. BUCHE	linear regression, polynomial regression, naive bayes, decision tree, logistic regression, neural network, SVM, HCI, IML
Wed 7-18	Framework / Data	Lecture	IML course 20205 - ENIS	C. BUCHE	data preparation, frameworks, hyper-parameters, data reduction
Wed 12-18	Detection - Prediction - Tests	Lecture	IML course 20205 - ENIS	C. BUCHE	clustering, classification, feature extraction, K-Fold cross validation, confusion matrix, accuracy, precision, recall, F1 Score, overfitting/underfitting
Thu 14-18	Navigation	Lecture	IML course 20205 - ENIS	C. BUCHE	Mesh, Graph, videos games, GNG, SGNG
Wed 18-19	AI Examples	Lecture	IML LAROS 2008 - ENIS	C. BUCHE	classification of galaxies
Thu 21-19	Believability	Lecture	IML course 20205 - ENIS	C. BUCHE	Turing test
Thu 24-19	Enactive artificial intelligence / Developmental approaches	Lecture	IML course 20205 - ENIS	C. BUCHE	
Thu 28-19	Interaction	Lecture	IML course 20205 - ENIS	M. NGUYEN	
Fri 1-20	Learning by demonstration, imitation learning, interactive learning	Lecture	IML course 20205 - ENIS	M. NGUYEN	
Wed 6-19	Deep Learning	Lecture	IML course 20205 - ENIS	F. DE LOOZE	
Thu 13-19	Deep Learning	Lecture	IML course 20205 - ENIS	F. DE LOOZE	
Thu 20-19	Deep Learning	Lecture	IML course 20205 - ENIS	F. DE LOOZE	
Thu 27-19	Exams	Lecture	IML LAROS 2008 - ENIS	F. DE LOOZE	

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# Calendar



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