Intro to Machine Learning

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Course material
https://github.com/dalcimar/MA28CP-Intro-to-Machine-Learning

Esse curso é lecionado no Programa de Pós Graduação em Engenharia Elétrica (PPGEE) e como optativa do curso de Engenharia da Computação e Engenharia Elétrica, ambos da UTFPR, campus Pato Branco.

- Caso tenha interesse em realizar mestrado nessa área entre em contato comigo, ou diretamente na secretaria do PPGEE. Links abaixo
- https://sites.google.com/view/ppgee-pb

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Topics Summary

- **Part I: Introduction**
  - Lecture 1: What is Machine Learning? An Overview.
  - Lecture 2: Intro to Supervised Learning: KNN
- **Part II: Computational Foundations**
  - Lecture 3: Using Python, Anaconda, IPython, Jupyter Notebooks
  - Lecture 4: Scientific Computing with NumPy, SciPy, and Matplotlib
  - Lecture 5: Data Preprocessing and Machine Learning with Scikit-Learn
- **Part III: Tree-Based Methods**
  - Lecture 6: Decision Trees
  - Lecture 7: Ensemble Methods
- **Part IV: Evaluation**
  - Lecture 8: Introduction to Overfitting and Underfitting
  - Lecture 9: Uncertainty Estimates and Resampling
  - Lecture 10: Model Selection and Cross-Validation
  - Lecture 11: Algorithm Selection and Statistical Tests
  - Lecture 12: Performance Metrics
- **Part V: Dimensionality Reduction**
  - Lecture 13: Feature Selection
  - Lecture 14: Feature Extraction
- **Part VI: Bayesian Learning**
  - Lecture 15: Bayes Classifiers
  - Lecture 16: Text Data & Sentiment Analysis
  - Lecture 17: Naive Bayes Classification
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- **Part VII: Regression**
  - Lecture 18: Intro to Regression Analysis
- **Part VIII: Unsupervised Learning**
  - Lecture 19: Intro to Clustering