The Immersive Course Model

METIS

1. Training

2. Repetition

3. Culture &
    Community

1. Training

METIS

Summary

Metis immersive courses are built around **measurable learning objectives** which are put into practice by **real-world data projects** and **frequently assessed** throughout the course.

Completion Requirements

In order to successfully complete the course, students are required to:

- Complete a project with a score of 15 or above (refer to the project introduction and project success guide)

- ▶ Pass two multiple-choice assessments on the course learning objectives (click to expand)

Measurable Learning Objectives

Web Scraping

1. Correctly describe the purpose and applications of python scraping libraries, including their respective strengths and limitations.
2. Demonstrate proficiency in web scraping syntax, successfully leveraging it to navigate HTML hierarchy and extract information from it.
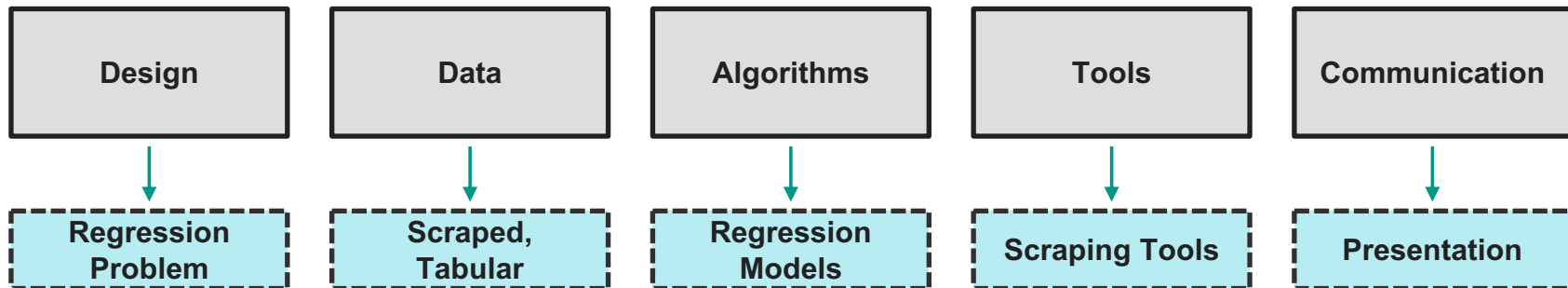
Put into Practice by Projects

🔗 Regression Course Project Introduction

Summary:

Using data scraped from a website, build linear regression models that address a useful prediction and/or interpretation problem in any domain of interest such as movies or sports. Communicate your process and findings in a 5 minute presentation (to the entire class at the end of week 2) and a short written description.

Design	Data	Algorithms	Tools	Communication

Regression Problem	Scraped, Tabular	Regression Models	Scraping Tools	Presentation

And Frequently Assessed

Daily Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	• Machine Learning Intro • Linear Regression Theory Intro • Project Introduction • Regression Project Workflow	• Pair: html • Web Scraping BeautifulSoup • Linear Regression Evaluation • Data Types	• Pair: regex • Web Scraping Selenium • Linear Regression Code Intro **Project Proposal / Scope Meeting** Due EOD	• Pair: linear regression practice • Bias-variance tradeoff • Cross Validation Assessment Part 1	• Pair: noise • Feature Engineering Regression
Week 2	• Pair: regression + feature practice 1 • Regularization Finalize Scraping over weekend	• Pair: lasso practice • Linear Regression Assumptions • Time Series **MVP** Due EOD	• Pair: regression + feature practice 2 • Stochastic Gradient Descent Assessment Part 2	• Pair: regression model review • Project Prep	**Slides, Writeup, Code** Due 9:00 am, Presentation Day

2. Repetition

METIS

Repetition: Review-Oriented Schedule

Daily Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	• Machine Learning Intro • Linear Regression Theory Intro • Project Introduction • Regression Project Workflow	• Pair: html • Web Scraping BeautifulSoup • Linear Regression Evaluation • Data Types	• Pair: regex • Web Scraping Selenium • Linear Regression Code Intro **Project Proposal / Scope Meeting Due EOD**	• Pair: linear regression practice • Bias-variance tradeoff • Cross Validation **Assessment Part 1**	• Pair: noise • Feature Engineering Regression
Week 2	• Pair: regression + feature practice 1 • Regularization Finalize Scraping over weekend	• Pair: lasso practice • Linear Regression Assumptions • Time Series **MVP Due EOD**	• Pair: regression + feature practice 2 • Stochastic Gradient Descent **Assessment Part 2**	• Pair: regression model review • Project Prep	**Slides, Writeup, Code Due 9:00 am, Presentation Day**

- Focus on practicing techniques

- Focus on reinforcing new concepts

Repetition: Consistency Across Courses

Metis immersive courses are consistent in structure and requirements

Daily Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
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Week 2	• Pair: regression + feature practice 1 • Regularization Finalize Scraping over weekend	• Pair: lasso practice • Linear Regression Assumptions • Time Series **MVP** Due EOD	• Pair: regression + feature practice 2 • Stochastic Gradient Descent Assessment Part 2	• Pair: regression model review • Project Prep	Slides, Writeup, Code Due 9:00 am, Presentation Day

Daily Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	• KNN Classification • Project Introduction • Classification Workflow	• Pair: Nearest Wookiee Neighbors • Logistic Regression	• Pair: Logistic • Classification Metrics • MLE (optional) • GLM (optional) **Project Proposal / Scope Meeting** Due EOD	• Pair: Classification Metrics • Classification And Regression Trees Assessment Part 1	• Pair: Bootstrap • Feature Engineering Classification Finalize Data Acquistion by EOD
Week 2	• Pair: Factorial • Class Imbalance • Ensembling	• Pair: Boost • XGBoost **MVP** Due EOD	• Pair: Coins • Bayes Theorem • Naïve Bayes • Model Complexity (optional) Assessment Part 2	• Pair: Models • Model Linearity (optional) • Project Prep	Slides, Writeup, Code Due 9:00 am, Presentation Day

3. Culture, Community, & Resources

METIS

During a Metis course, you will have...

- Focused Time
- Peer & Community Support
- Experienced Instructors
- Industry Leading Curriculum

Instructor and Peer Collaboration

Daily Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday
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- Daily live instruction

- Daily pair programming exercise with peers

- Daily instructor office hours for 1-1 help
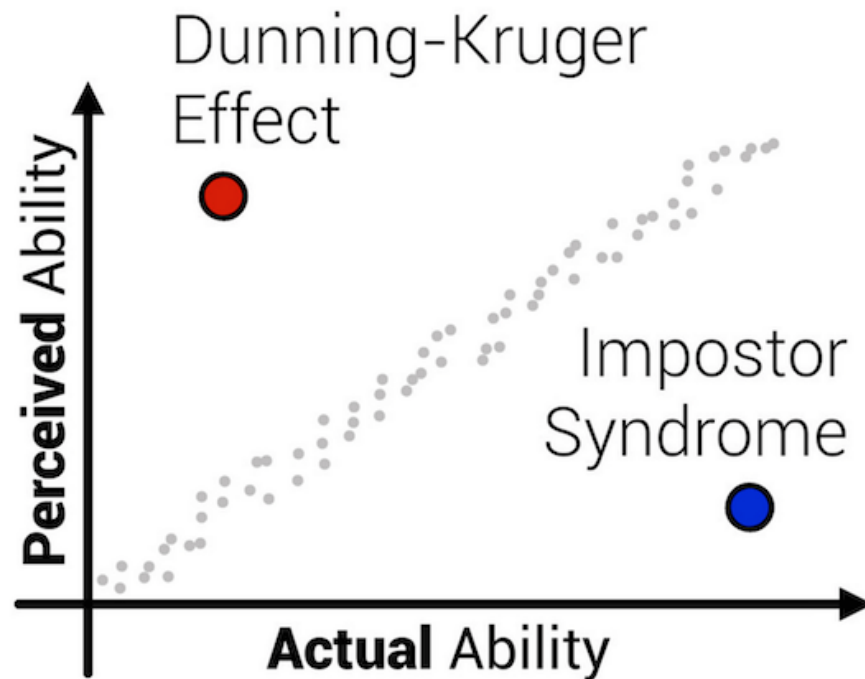
Culture: Overcoming Obstacles

You must overcome two things:

1. Imposter Syndrome

2. Perfectionism

Culture: Imposter Syndrome

You must overcome two things:

1. Imposter Syndrome

    Collaboration

    Communication

2. Perfectionism

Culture: Perfectionism

You must overcome two things:

1. Imposter Syndrome

    Collaboration

    Communication

2. Perfectionism

    Unfairly short deadlines

    Jumping into the unfamiliar

Community: Becoming a Data Professional

Mixture of individual and collaborative work

Instructors, Program Manager

Career Advisor support (for those doing a Bootcamp track)

Hiring partners

Metis alumni network

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> *"The classroom instruction, project work, and resources offered through the career counseling and continued alumni support is invaluable. <u>I was exhausted every day, but I woke up looking forward to every day</u>."*
>
> **– Metis Alumni**