

Lesson 15: Hypothesis Testing

Data Science with Python – BSc Course

45 Minutes

Learning Objectives

After this lesson, you will be able to:

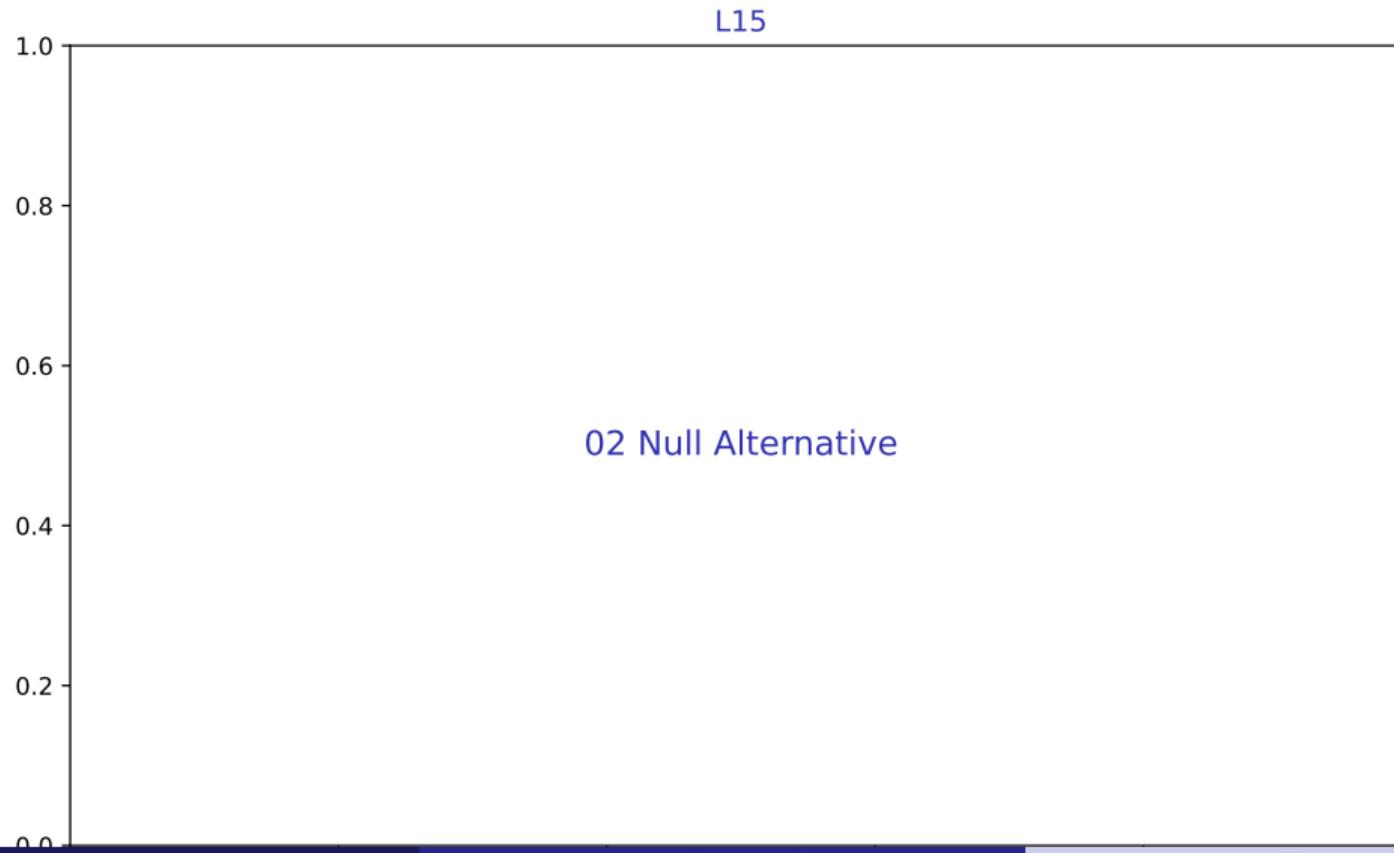
- Formulate null and alternative hypotheses
- Perform t-tests
- Interpret p-values correctly
- Construct confidence intervals

Finance application: Statistical analysis of market data

L15

01 Hypothesis Concept

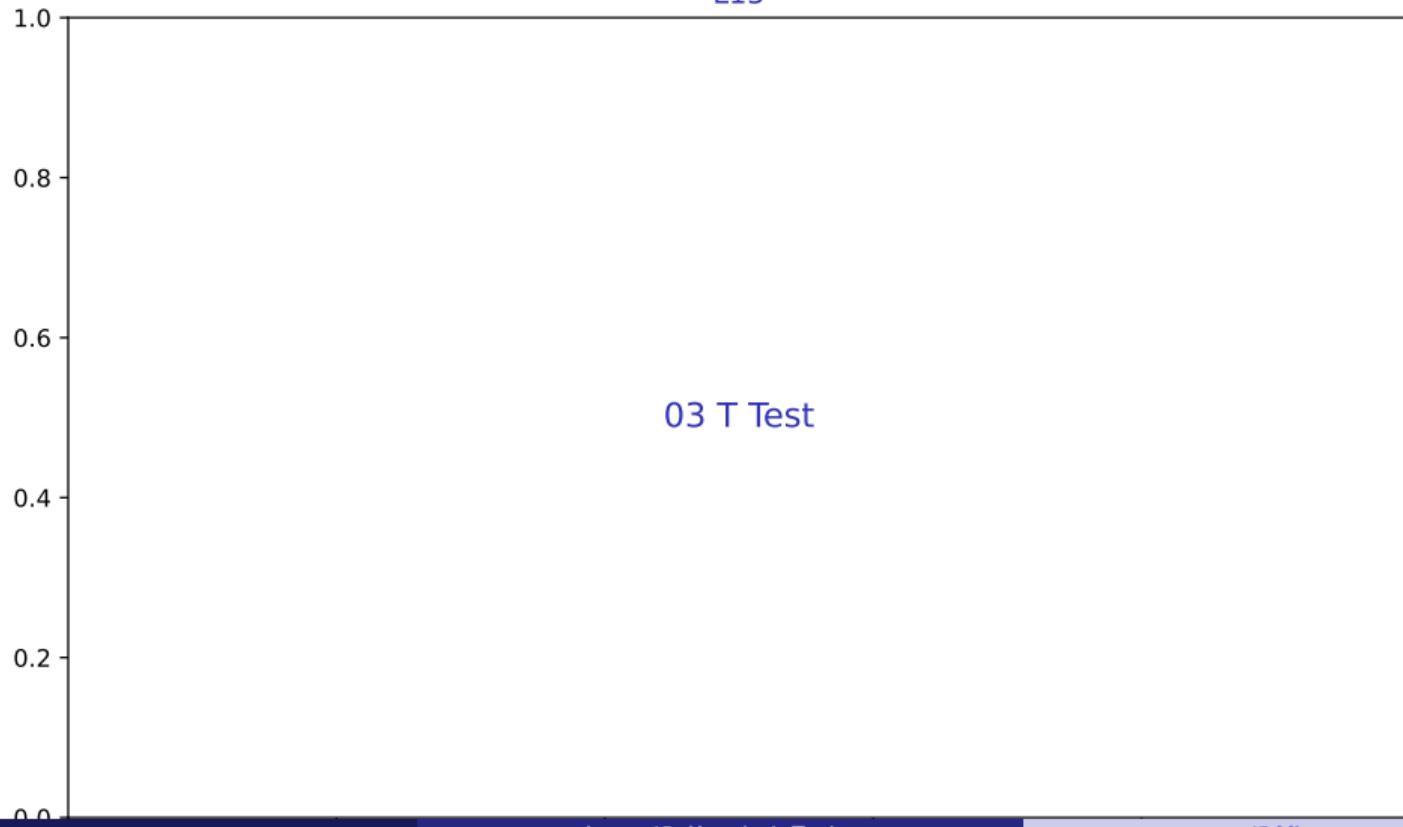
Null Alternative



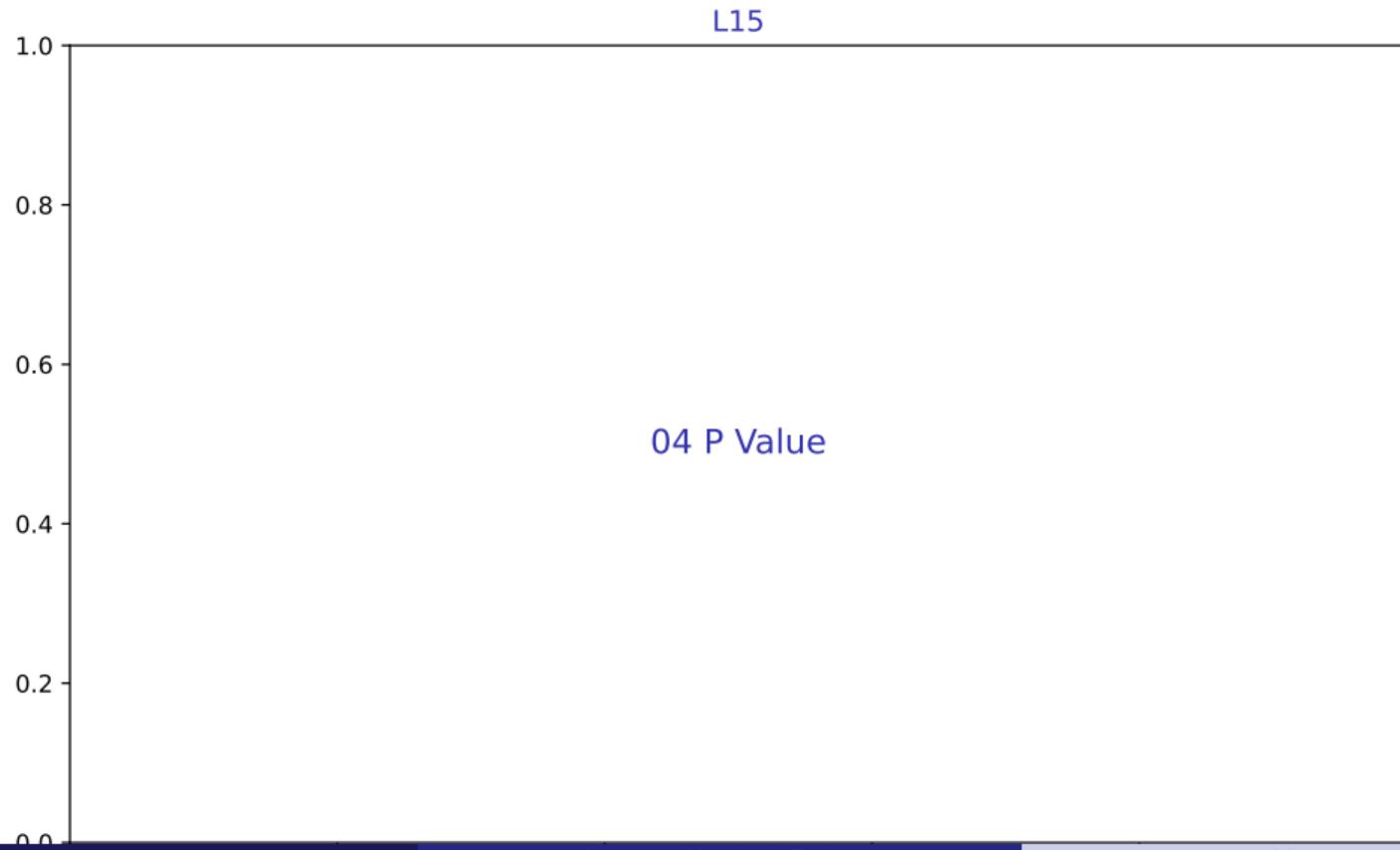
T Test

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03 T Test

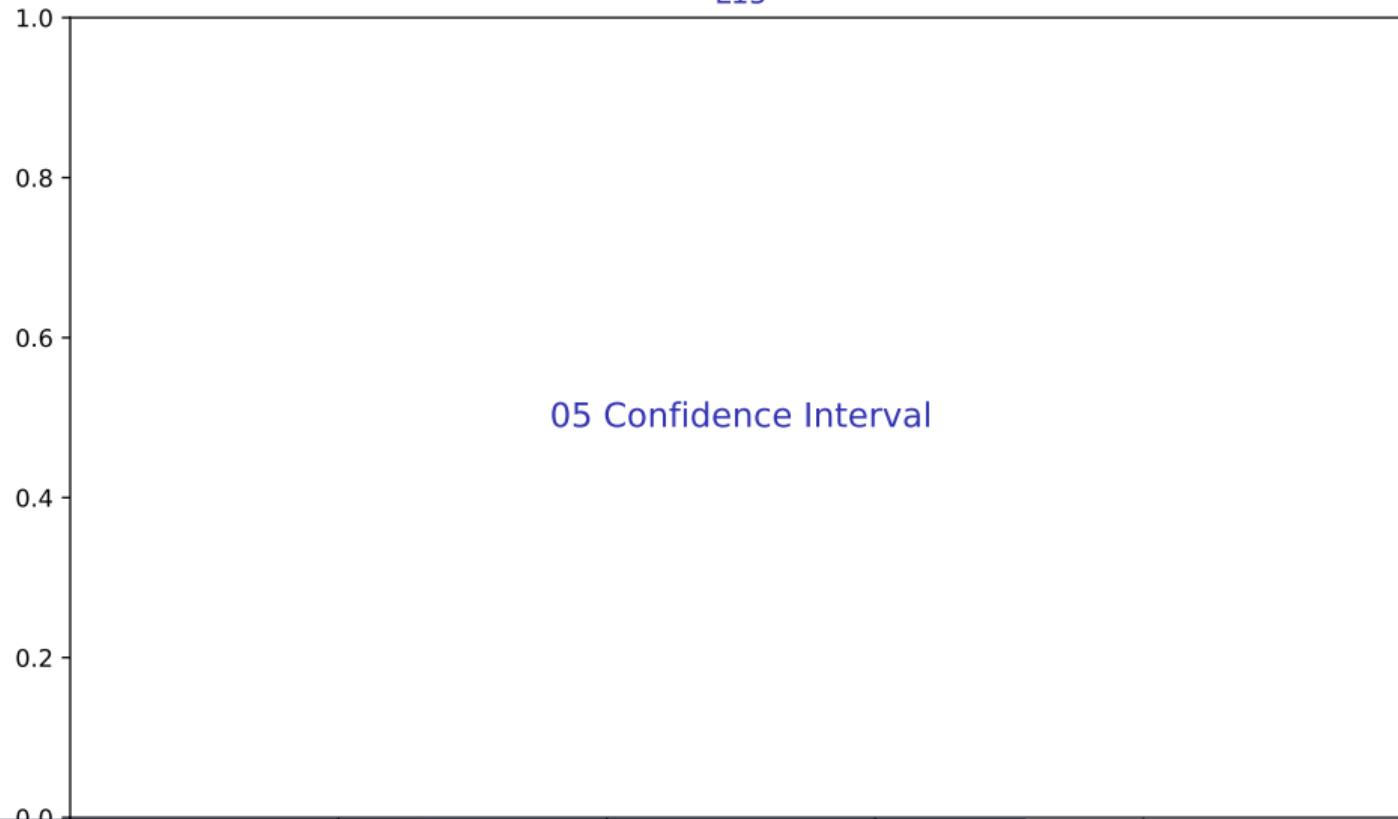


P Value



Confidence Interval

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Type Errors

L15

06 Type Errors

Ab Testing

L15

07 Ab Testing

L15

08 Finance Tests

Key Takeaways:

- Formulate null and alternative hypotheses
- Perform t-tests
- Interpret p-values correctly
- Construct confidence intervals

Statistics + Visualization = Data Science foundation