

# Python for Finance-II

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## 1 Simulation Analysis

- Simulation in Python

## 2 Derivative Valuation

- Option Valuation

## 3 Portfolio Theory and Its Application in Python

- Portfolio Optimization

# Simulation with Python

- Monte Carlo Simulation
- Stock Price Simulation

# Main Concepts

- The concept of option
- Valuation of a European Call Option
- Valuation of a European Call Option
- Valuation of an American Call Option
- Valuation of an American Call Option
- Exercise

# Portfolio Theory

- Markowitz's Portfolio Theory
- Sharpe Ratio
- Efficient Frontier

# Thank You