Mindluster Platform

About the course Data Driven Science and Engineering

Then what does it mean to be â€œdata-driven?â€ This term describes a decision-making process which involves collecting data, extracting patterns and facts from that data, and utilizing those facts to make inferences that influence decision-making .

Programming Category's Courses

Course Lesson(98)

Lesson 1 : **Singular Value Decomposition SVD Overview**

Lesson 2 : **Singular Value Decomposition SVD Mathematical Overview**

Lesson 3 : **Singular Value Decomposition SVD Matrix Approximation**

Lesson 4 : **Singular Value Decomposition SVD Dominant Correlations**

Lesson 5 : **SVD Image Compression Matlab**

Lesson 6 : **SVD Image Compression Python**

Lesson 7 : **The Frobenius Norm for Matrices**

Lesson 8 : **SVD Method of Snapshots**

Lesson 9 : **Matrix Completion and the Netflix Prize**

Lesson 10 : **Unitary Transformations**

Lesson 11 : **Unitary Transformations and the SVD Matlab**

Lesson 12 : **Unitary Transformations and the SVD Python**

Lesson 13 : **Linear Systems of Equations Least Squares Regression Pseudoinverse**

Lesson 14 : **Least Squares Regression and the SVD**

Lesson 15 : **Linear Systems of Equations**

Lesson 16 : **Linear Regression**

Lesson 17 : **Linear Regression 1 Matlab**

Lesson 18 : **Linear Regression 2 Matlab**

Lesson 19 : **Linear Regression 1 Python**

Lesson 20 : **Linear Regression 2 Python**

Lesson 21 : **Linear Regression 3 Python**

Lesson 22 : **Principal Component Analysis PCA**

Lesson 23 : **Principal Component Analysis PCA Matlab**

Lesson 24 : **Principal Component Analysis PCA 1 Python**

Lesson 25 : **Principal Component Analysis PCA 2 Python**

Lesson 26 : **SVD Eigenfaces 1 Matlab**

Lesson 27 : **SVD Eigenfaces 2 Matlab**

Lesson 28 : **SVD Eigenfaces 3 Matlab**

Lesson 29 : **SVD Eigenfaces 4 Matlab**

Lesson 30 : **SVD Eigen Action Heros Matlab**

Lesson 31 : **SVD Eigenfaces 1 Python**

Lesson 32 : **SVD Eigenfaces 2 Python**

Lesson 33 : **SVD Eigenfaces 3 Python**

Lesson 34 : **SVD and Optimal Truncation**

Lesson 35 : **SVD Optimal Truncation Matlab**

Lesson 36 : **SVD Optimal Truncation Python**

Lesson 37 : **SVD and Alignment A Cautionary Tale**

Lesson 38 : **SVD Importance of Alignment Matlab**

Lesson 39 : **SVD Importance of Alignment Python**

Lesson 40 : **Randomized Singular Value Decomposition SVD**

Lesson 41 : **Randomized SVD Power Iterations and Oversampling**

Lesson 42 : **Randomized SVD Code Matlab**

Lesson 43 : **Randomized SVD Code Python**

Lesson 44 : **Fourier Analysis Overview**

Lesson 45 : **Fourier Series Part 1**

Lesson 46 : **Fourier Series Part 2**

Lesson 47 : **Inner Products in Hilbert Space**

Lesson 48 : **Complex Fourier Series**

Lesson 49 : **Fourier Series Matlab**

Lesson 50 : **Fourier Series Python**

Lesson 51 : **Fourier Series and Gibbs Phenomena Matlab**

Lesson 52 : **Fourier Series and Gibbs Phenomena Python**

Lesson 53 : **The Fourier Transform**

Lesson 54 : **The Fourier Transform and Derivatives**

Lesson 55 : **The Fourier Transform and Convolution Integrals**

Lesson 56 : **Parseval s Theorem**

Lesson 57 : **Solving the Heat Equation with the Fourier Transform**

Lesson 58 : **The Discrete Fourier Transform DFT**

Lesson 59 : **Computing the DFT Matrix**

Lesson 60 : **The Fast Fourier Transform FFT**

Lesson 61 : **The Fast Fourier Transform Algorithm**

Lesson 62 : **Denoising Data with FFT Matlab**

Lesson 63 : **Denoising Data with FFT Python**

Lesson 64 : **Computing Derivatives with FFT Matlab**

Lesson 65 : **Computing Derivatives with FFT Python**

Lesson 66 : **Solving PDEs with the FFT Matlab**

Lesson 67 : **Solving PDEs with the FFT Python**

Lesson 68 : **Solving PDEs with the FFT Part 2 Matlab**

Lesson 69 : **Solving PDEs with the FFT Part 2 Python**

Lesson 70 : **The Spectrogram and the Gabor Transform**

Lesson 71 : **Spectrogram Examples Matlab**

Lesson 72 : **Spectrogram Examples Python**

Lesson 73 : **Uncertainty Principles and the Fourier Transform**

Lesson 74 : **Wavelets and Multiresolution Analysis**

Lesson 75 : **Image Compression and the FFT**

Lesson 76 : **Image Compression with Wavelets Examples in Python**

Lesson 77 : **Image Compression with the FFT Examples in Matlab**

Lesson 78 : **Image Compression and Wavelets Examples in Matlab**

Lesson 79 : **Image Compression and the FFT Examples in Python**

Lesson 80 : **The Laplace Transform A Generalized Fourier Transform**

Lesson 81 : **Laplace Transforms and Differential Equations**

Lesson 82 : **Laplace Transform Examples**

Lesson 83 : **Sparsity and Compression An Overview**

Lesson 84 : **Data driven Modeling of Traveling Waves**

Lesson 85 : **Machine Learning for Fluid Mechanics**

Lesson 86 : **Data Driven Resolvent Analysis**

Lesson 87 : **Data driven nonlinear aeroelastic models of morphing wings for control**

Lesson 88 : **Model Predictive Control**

Lesson 89 : **Robust Principal Component Analysis RPCA**

Lesson 90 : **Deep Learning of Hierarchical Multiscale Differential Equation Time Steppers**

Lesson 91 : **Reinforcement Learning Machine Learning Meets Control Theory**

Lesson 92 : **Deep Reinforcement Learning Neural Networks for Learning Control Laws**

Lesson 93 : **Deep Reinforcement Learning for Fluid Dynamics and Control**

Lesson 94 : **Overview of Deep Reinforcement Learning Methods**

Lesson 95 : **Reinforcement Learning Series Overview of Methods**

Lesson 96 :
Model Based Reinforcement Learning Policy Iteration Value Iteration and Dynamic Programming

Lesson 97 : **Q Learning Model Free Reinforcement Learning and Temporal Difference Learning**

Lesson 98 :
Optimal Nonlinear Control with Hamilton Jacobi Bellman HJB and Dynamic Programming

Related courses

React Projects Workshops

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