Logbook – 2024 May - June – Dimensionality Reduction and Applications (DRA)

Resources
Jun 11, 2024 Divergence-based methods, interactive DR, and applications
Jun 4, 2024 Structure preservation - Spectral DR (Laplacian Eigenmaps)
May 28, 2024 Kernel PCA
May 21, 2024 Basics of dimensionality reduction

Resources

- GDrive folder: FullMaterial_DimensionReductionAndApplications
- Syllabus - Dimensionality Reduction and Applications (DRA)
- GSite: SDAS Group - Courses - Dimensionality reduction and applications

Jun 11, 2024 Divergence-based methods, interactive DR, and applications

Jun 4, 2024 Structure preservation - Spectral DR (Laplacian Eigenmaps)

- **Lecture 3:** Structure preservation
  - Slides
  - Recommended reading

- **Lecture 4:** Spectral dimensionality reduction: Laplacian Eigenmaps
  - Slides
  - Recommended reading

May 28, 2024 Kernel PCA

- **Lecture 2:** Kernel PCA
  - Slides
  - Lecture notes Section 4
  - Feature selection using PCA:
    Unsupervised_relevance_ICPRAM2013_long_version.pdf

May 21, 2024 Basics of dimensionality reduction

- **Lecture 0:** Motivation and course presentation
  - Slides
- **Lecture 1:** Basics of dimensionality reduction
  - Slides
    - High-dimensional data
    - What is dimensionality reduction?
    - Principal component analysis
- Assignment 1
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