DataVis – SpotiVis

• Visualize your music library from Spotify

• Song features
  • Acousticness
  • Danceability
  • ...

• Extend existing (web-) application with new features
  • Suggestions for new songs
  • "Clean-up" of playlist by finding outliers and the like
  • ...

• Technologies: JS / D3.js, Vue.js, HTML, CSS, sqlite
DataVis – SpotiVis

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DataVis – SpotiVis
DataVis – SpotiVis
DataVis – FeatureVis2Info

- CNNs learn similar features across different architectures and data sets
  - Edge- and curve detectors
  - Eyes, dog snouts
DataVis – FeatureVis2Info

• CNNs learn similar features across different architectures and data sets
  • Edge- and curve detectors
  • Eyes, dog snouts
• Match filters in different networks
• Similarities and differences
• Insights about training data
• Deeper understanding what these networks learn
• How can we interpret it?
DataVis – 3D XAI

- Explainability of neural networks only for (2D) image-based networks
- Recently: unstructured 3D convolutions
  - Points clouds
  - Autonomous driving
  - Analyzing molecule structures

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DataVis – 3D XAI

• Explainability of neural networks only for (2D) image-based networks

• Recently: unstructured 3D convolutions
  • Points clouds
  • Autonomous driving
  • Analyzing molecule structures

• What do these networks actually learn?
  Adapt concepts from image-based explainability techniques

• Better understanding what these novel architectures learn
DataVis – 3D XAI

Layer 1

Layer 3

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