

Deliverables: Oct 16, 2017

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N.O.M.A.D.S

From Last Week

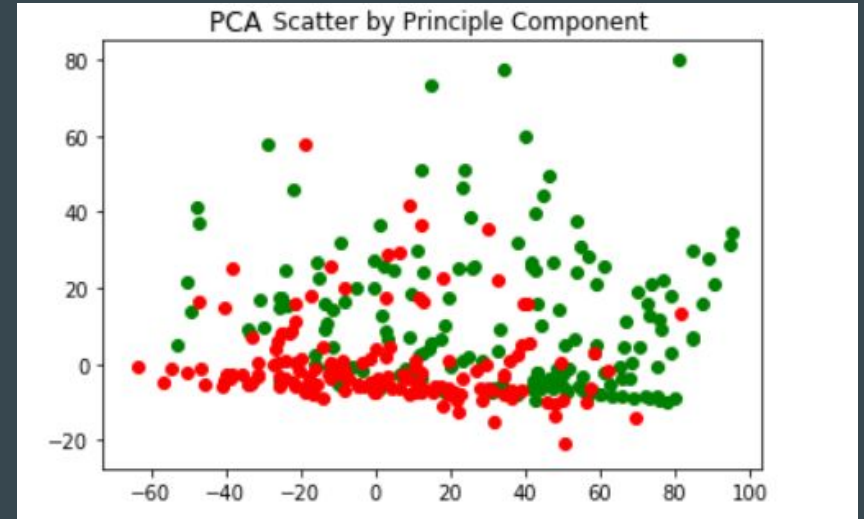
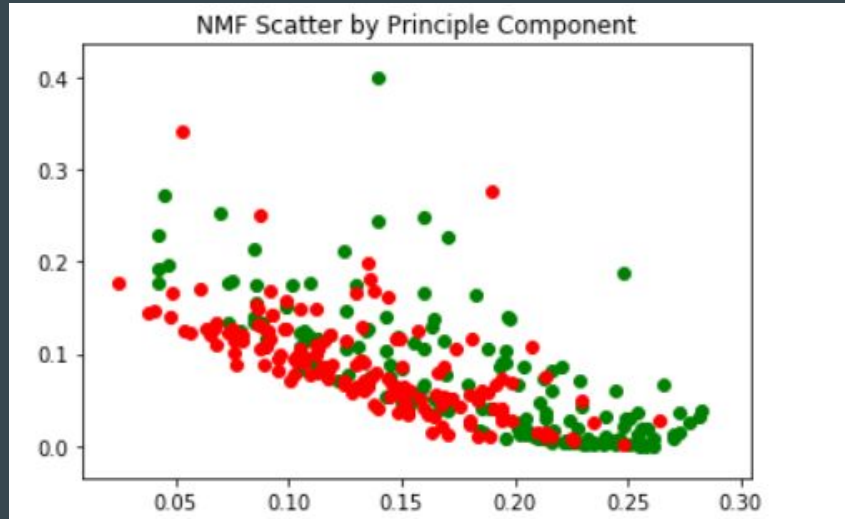
- NMF Algorithms.md
- Data Science Specialization
- Biomarkers Table
- Exploratory Data Analysis

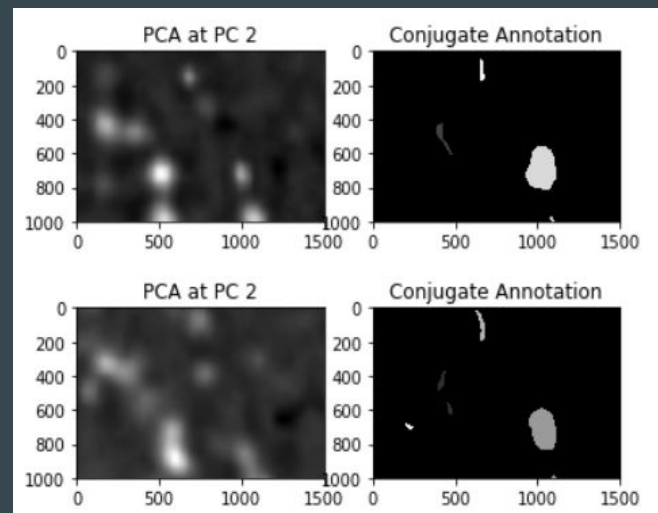
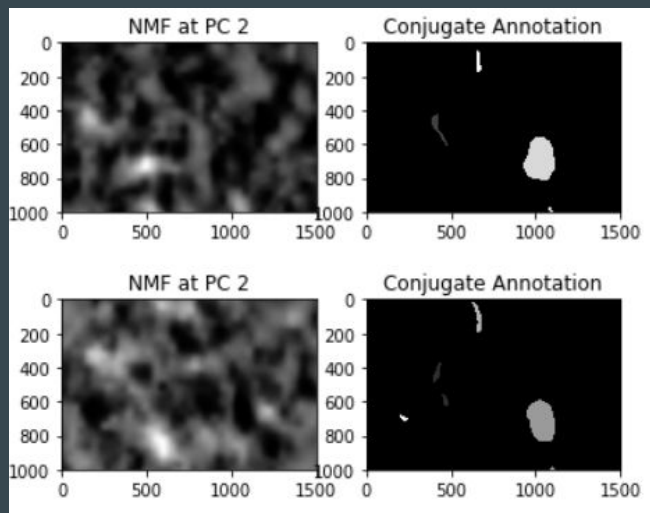
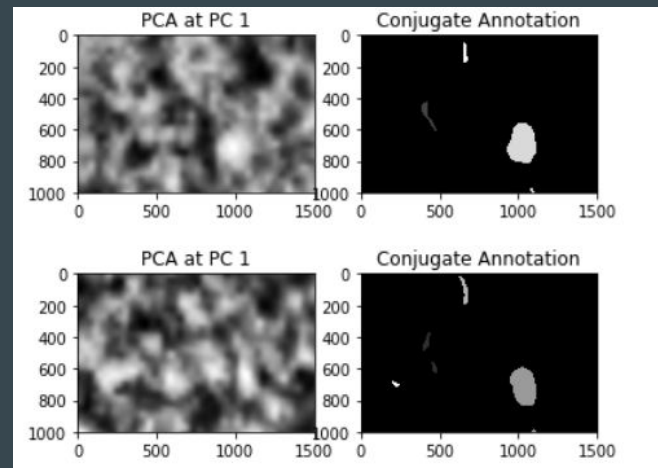
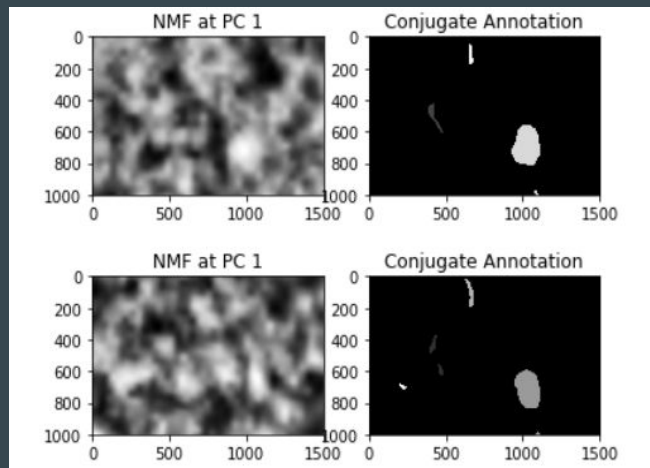
From Last Week

- NMF Algorithms.md ✓
- Data Science Specialization (Course 1 of 10 completed) ✓
- Biomarkers Table ✓
- Exploratory Data Analysis ✓

NMF Algorithms.md

Link [here](#)





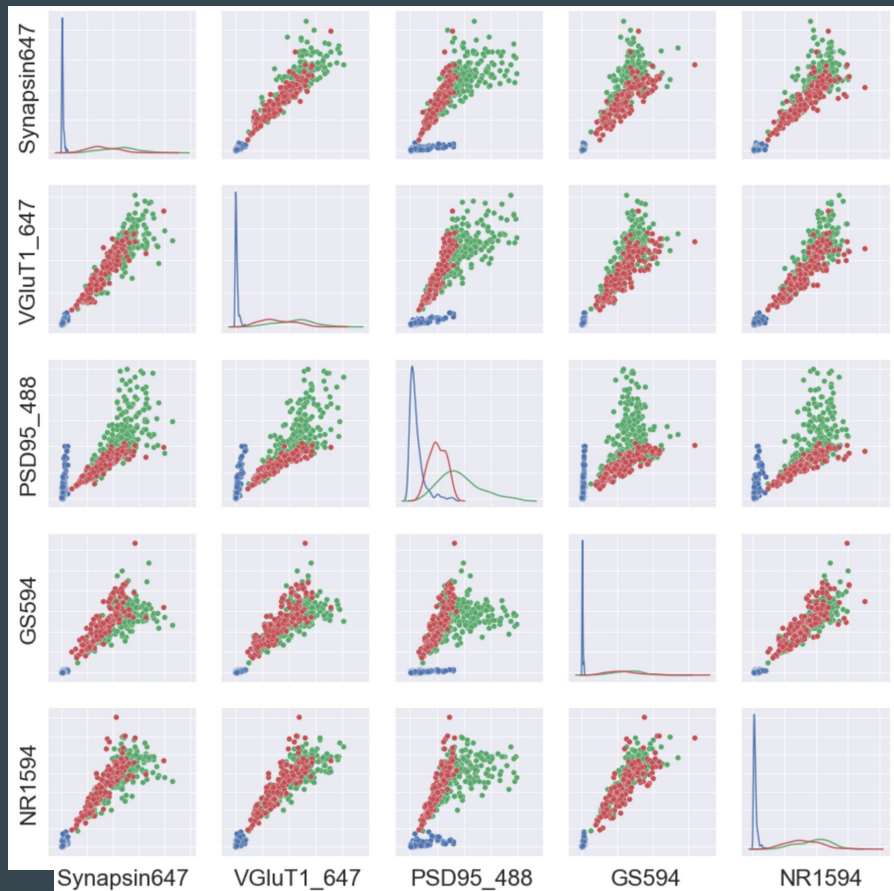
Biomarkers Table

Biomarkers Table [here](#)

Biomarker	Presynaptic	Postsynaptic	Excitatory	Inhibitory
Synapsin	✓		✓	✓
VGlut1	✓		✓	
PSD-95		✓	✓	
GluN1		✓	✓	
GABA	✓	✓		✓
GAD	✓			✓
Gephyrin		✓		✓

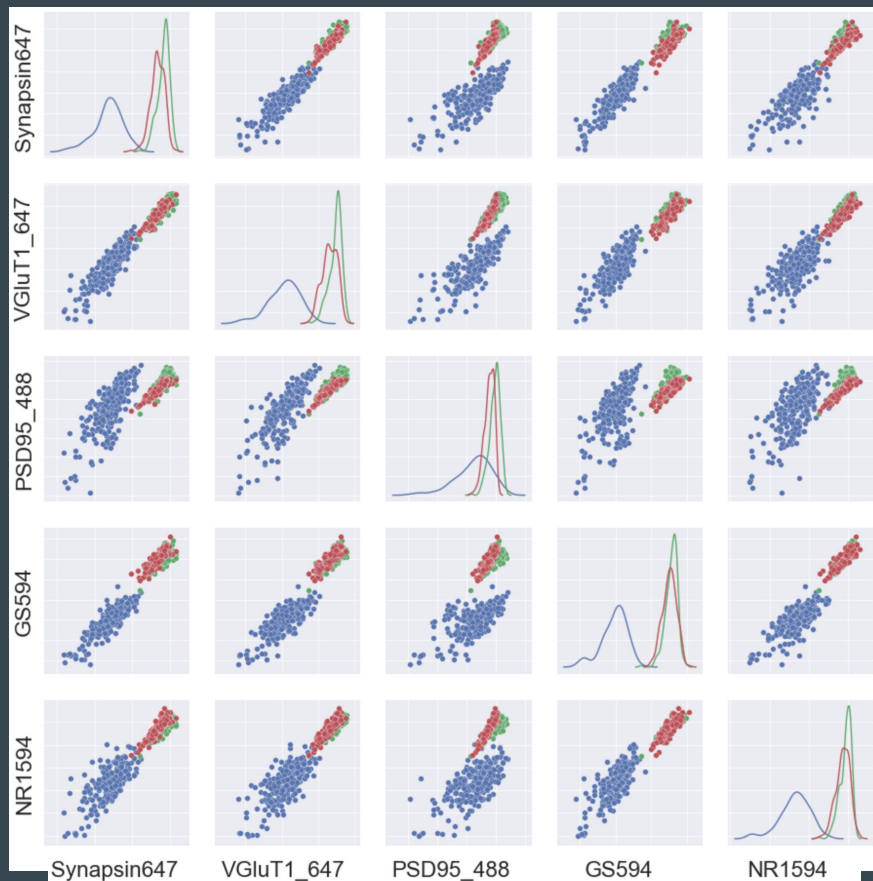
Exploratory Data Analysis

Code [here](#)



Exploratory Data Analysis (Log transform)

Code [here](#)



Blue - synapse
Green - around synapse
Red - non-synapse

For Next Week

- Explained Variance Plots for Dimensionality Reduction Techniques
 - DoD The plots themselves
- Based on initial variance of channel, leave some out of PVA/NMF
- Generate one page summary for “Knowing a synapse when you see one” paper
 - DoD: Detailed written summaries for each section of the paper that capture its most important points (google doc)
 - Additional DoD: images of practice manual annotations on Collman EM data using strategies mentioned in the aforementioned paper with a google doc detailing which strategies were employed and how they were employed to each annotation