**Advanced Natural Language Processing Skills Training**

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In general, Day 1 focuses on what makes NLP different than other areas of data science. Day 2 focuses on statistical NLP. Day 3 focuses on deep neural embeddings.

**Day 1**

Overview

Presentation: Linguistics for NLP

Case Study: Human Resources NLP

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Case Study Discussion

Presentation: Overview of NLP COI Software, Learning, and Dataset Resources [NO SLIDES]

Case Study: Linguistic Features

Presentation: Notebook Services for Learning NLP

Demonstration of Google Colab [NO SLIDES]

Programming Challenge: Get familiar with NLP in Google Colab

**Day 2**

Presentation: Unicode – What you need to know

Presentation: Unicode Supplement

Programming Challenge: Build a Language ID System

LUNCH

Programming Challenge: Build (Extend) a Language ID System

Presentation: Differences between NLP and Text Analytics (Liz)

Presentation: Black Box NLP

?? Intro to Probability Theory / Chain Rule

?? Sentiment

Presentation: Advanced Topics in Topic Modeling

Programming Challenge: Topic Modeling

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Discussion: Propose a new Emoji Character

**Day 3**

Presentation: How to get to Sesame Street

?? Independent Study: Beginner and Advanced Track BERT Videos

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Programming Challenge: Sentiment Classifier using BERT

Presentation: NLP Visualization

Discussion: Projects at AFS using NLP