# MLOS[2]
# Lecture 1

Primer on Research

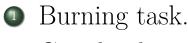# (Today) Primer on Research

# Quality and Focus

1. Quality above all else.

# Quality and Focus

1. Quality above all else.

2. Two drops to zero much faster than it drops to one.

# 3 Steps in ML Research

1. Burning task.
2. Get the data.

5% inspiration, 95% perspiration.

# 3 Steps in ML Research

1. Burning task.
2. Get the data.

1. Interesting data.
2. What's the right task.

5% inspiration, 95% perspiration.

# 3 Steps in ML Research

1. Burning task.
2. Get the data.

1. Interesting data.
2. What's the right task.
3. Develop methods to answer.
4. Test methods, get results.
5. Write paper.

5% inspiration, 95% perspiration.

# 3 Steps in ML Research

1. NLP Methods. Unstructured to structured data for disease. (PAHO, WHO, UN Portal, …)

2. Disease Modeling: NASA EO-data+Disease dynamics for prediction (e.g. lag times).

3. Agriculture and food dependence on weather dynamics and extreme events.

4. Critical infrastructure vulnerability to weather (e.g. hospital, power, transportation).

5. Wild fire empact on society and environment (eg. polution driven health effects).

# Action Items

1. Identify and become familiar with data. Checkin Friday.

2. Preliminary exploration and idetification of research questions.