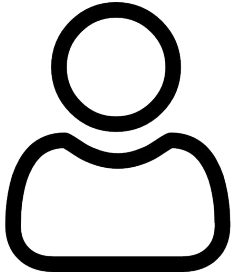


# Concrete Pump Size Classification

PARISlab Research Project  
Nick Monozon

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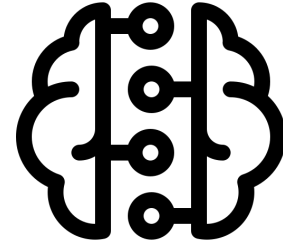
# Overview



Introduction

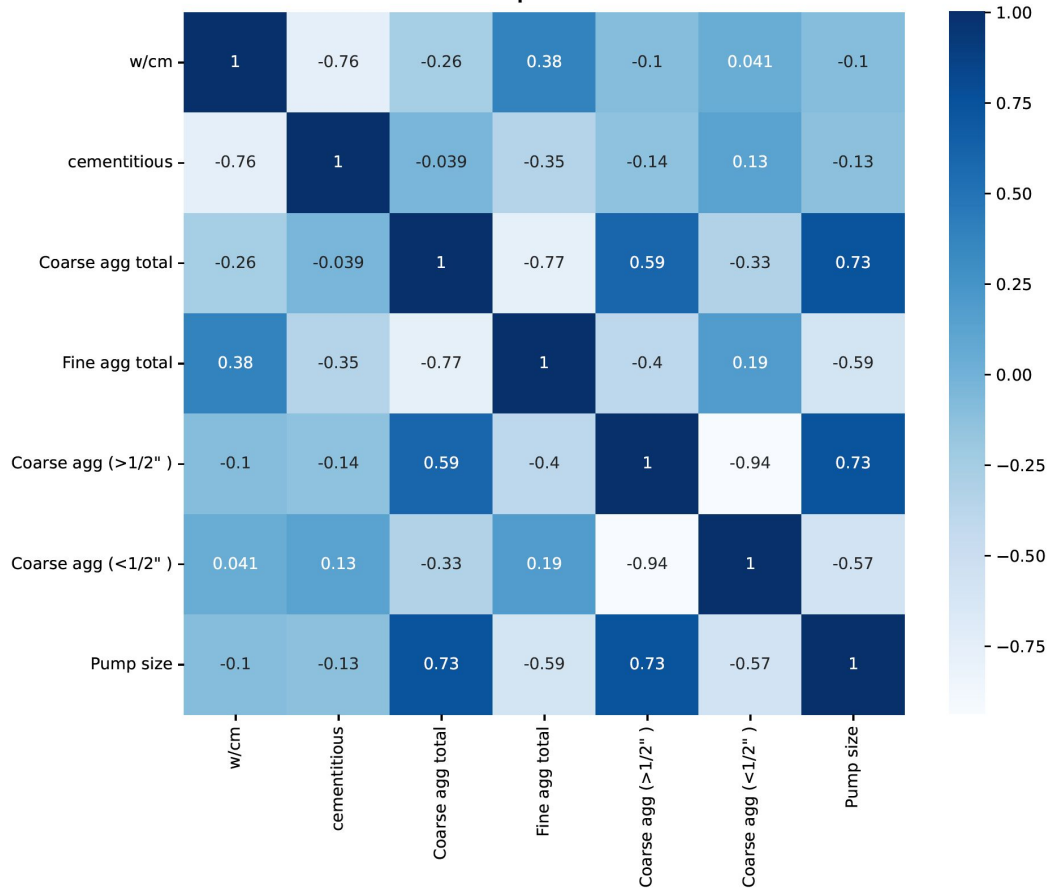


Field Dataset

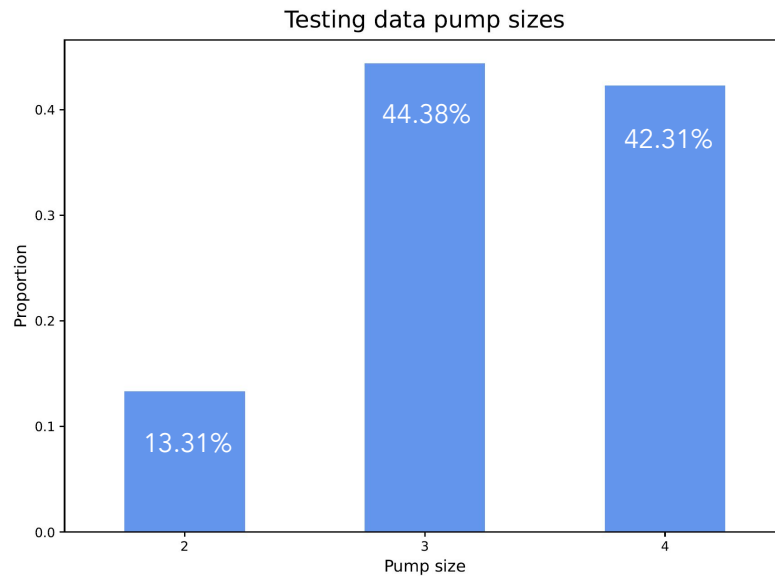
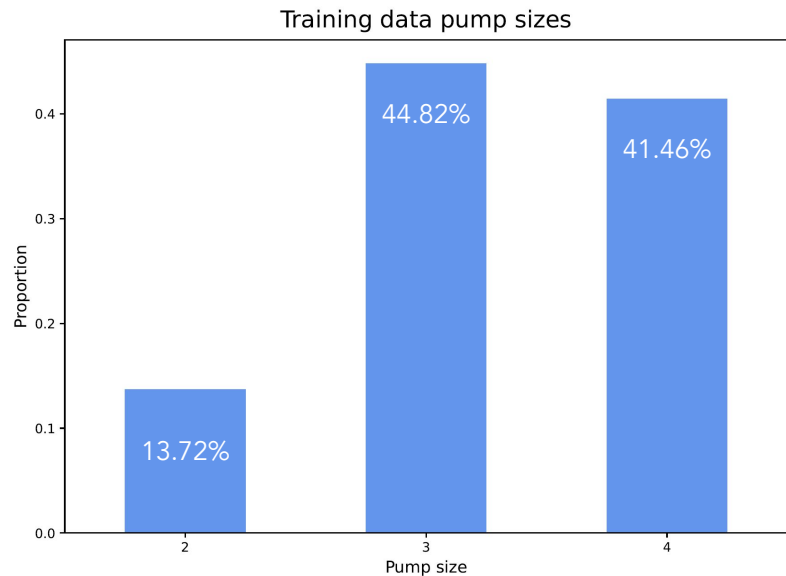


Neural Network

# Scatterplot Matrix

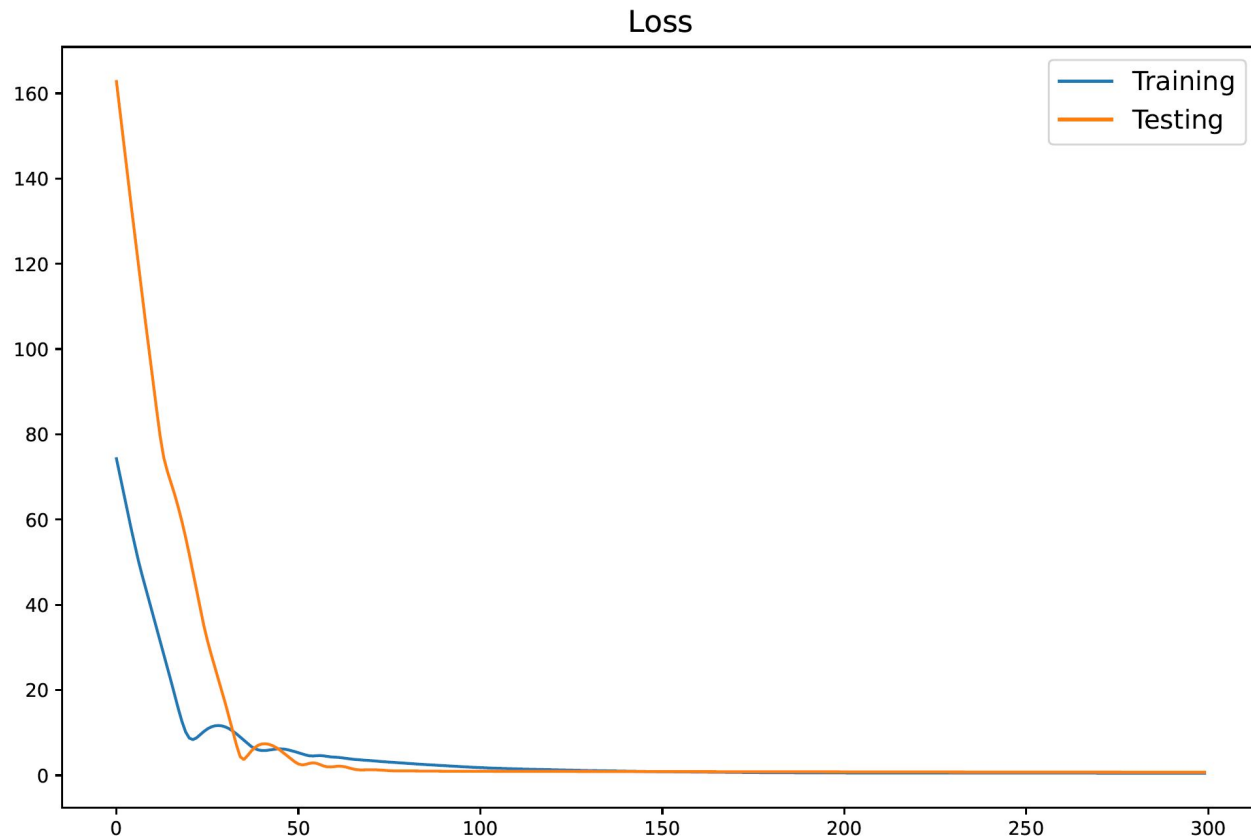


# Training and testing datasets (n=5747)

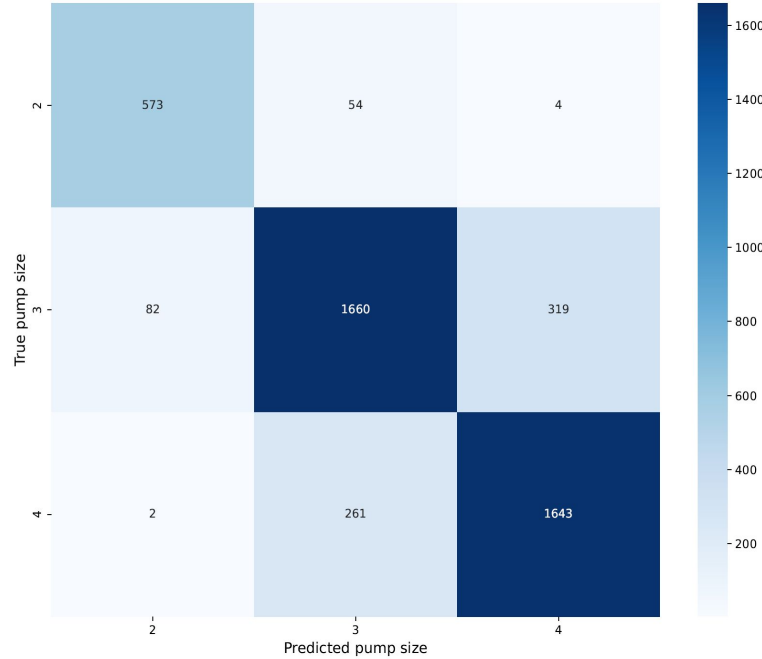


# Model details

- 2 hidden layers
  - 16 and 8 neurons respectively
- CrossEntropyLoss
- ReLU activator
- Adam optimizer (lr=0.001)
- 300 epochs for training data

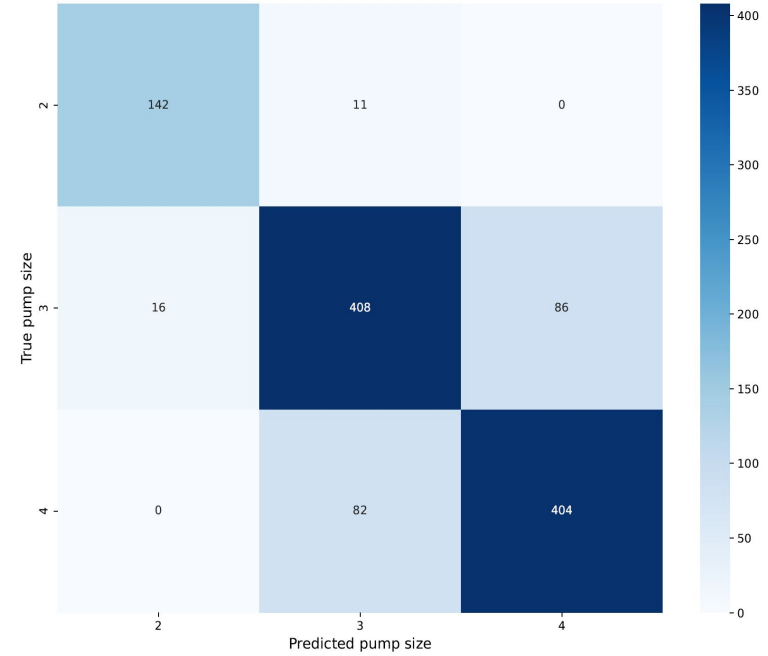


Confusion Matrix (Training Data)



Accuracy: 84.30%

Confusion Matrix (Testing Data)



Accuracy: 83.02%

# Future directions

- Hyperparameter optimization
- Stochastic Gradient Descent (SGD)
  - Momentum
- Revisit classification task with GPR



Thank you!