COLIN QUIRK

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EDUCATION

University of Chicago
Ph.D. in Psychology (ABD)* Expected 2023

Hampshire College
B.A. in Cognitive Neuroscience 2015

WORK EXPERIENCE

SparkNeuro – Director of Machine Learning Sept 2020-Present
– Previous roles: Senior Machine Learning Engineer, Data Scientist
– Managed a team of data scientists working on core algorithm development and publications
– Helped plan and execute a clinical study with hundreds of participants
– Assisted with design and creation of the MLOps backend for model training
– Tools used: python, R, SQL, AWS

Allstate – Data Science Intern Summer 2019
– Created a model using xgboost to predict likelihood of a quote binding
– Made multiple contributions to shared machine learning libraries
– Gave a company wide presentation about improved data visualization
– Tools used: SQL, pyspark, R

RELEVANT ACADEMIC PROJECTS

Classifying Individuals with Eyetracking Data using Deep Learning

– Organized and cleaned 20GB of eye tracking data
– Classified individual segments of eye tracking with high accuracy using CNNs
– Tools used: Python (fastai/PyTorch), R (data cleaning)

Spatial Biases Influence Encoding of Information into Working Memory

– Reanalyzed experiments with a large number of participants (>470000 trials analyzed)
– Combined data from multiple, existing sources to address research questions
– Created open source python libraries which have been used by other researchers to run experiments
– Used k-means clustering to generate factors in datasets that were missing critical information
– Tools used: Python (experiment code), R (analyses/visualization)

Replication of Working Memory Research using EEG

– Used Bayesian regression models to assess if our work replicated the previous literature
– Tools used: Matlab (experiment code), R (analyses/visualization)

TEACHING

Experimental Design I & II (Assistantship – assisting with course design) 2020
Psychological Research Methods (Primary Instructor) 2020
Psychological Statistics (Assistantship) 2018

For a full list of my publications, please see colinquirk.com/publications