# **COLIN QUIRK**

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## **EDUCATION**

University of Chicago

Ph.D. in Psychology\* Expected 2021

Hampshire College

B.A. in Cognitive Neuroscience 2015

# **WORK EXPERIENCE**

#### SparkNeuro - Senior Machine Learning Engineer

Sept 2020-Present

- Helped design experiments and create multiple machine learning models
- Created tools to be used by the data science team for deploying models
- Tools used: python, R

#### 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
- 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 60% accuracy (chance = 3%) 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
- 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

- Ran multiple behavioral and EEG experiments
- 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