Matthew Jörke

CONTACT

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EDUCATION

University of California, Berkeley // Aug 2015–Dec 2019
Computer Science (B.A.) & Cognitive Science (B.A.), GPA: 3.99

HfG Schwäbisch Gmünd // Feb 2019–Jul 2019
Exchange semester in Interaction Design

RESEARCH EXPERIENCE

Natural Language Processing // Aug 2019–Present
School of Information, UC Berkeley

- Working with David Bamman and Jon Gillick on domain-based fine tuning of word representations
- Exploring models and techniques to incorporate document-level context during sentence-level prediction
- Training and evaluating BERT variants on several named-entity recognition datasets

Human–Computer Interaction // Feb 2018–Feb 2019
Hyrid Ecologies Lab, UC Berkeley

- Co-authored «Hybrid Microgenetic Analysis» (presented at C&C 2019) with César Torres
- Developed and published the analysis/visualization suite eluent
- Generated visualization graphics and designed figures for the final submission
- Researched DTW clustering & pattern mining techniques to improve perfomance and accuracy

Cognitive Neuroscience // Mar 2017–May 2018
D'Esposito Lab, UC Berkeley

- Worked with human subjects in fMRI, EEG, and TMS experiments
- Performed artifact removal (MATLAB) for EEG cognitive control experiments and combined TMS/fMRI working memory experiments

Neuroeconomics // Jan 2016–May 2016
Knight Lab, UC Berkeley

- Identified surgical electrodes in MRI/CT scan data from epileptic patients in neuroeconomics experiments

PUBLICATIONS

- César Torres, **Matthew Jörke**, Emily Hill, & Eric Paulos. 2019. Hybrid Microgenetic Analysis: Using Activity Codebooks to Identify and Characterize Creative Process. In Proceedings of the 2019 ACM SIGCHI Conference on Creativity & Cognition (pp. 2-14).

INDUSTRY EXPERIENCE

Deep Learning Intern // May 2018–Aug 2018
Lighthouse AI, Palo Alto

- Modified speech recognition CNN architectures (PyTorch) and collected custom training data to classify non-speech sounds at 99%+ accuracy
- Implemented novel embedding re-ranking metrics (Tensorflow) to improve person re-identification accuracy
- Developed visualization tools to diagnose misclassified images/videos

AWARDS & HONORS

EECS Honors Program
- Departmental honors with a concentration in Cognitive Neuroscience

College of Letters & Science Dean's Honors List
- Awarded to top 10% of L&S undergraduates each semester

Kraft Award for Freshman
- Stipend awarded to incoming freshman who receive a 4.0 their first semester

RELEVANT COURSEWORK

Computer Science
Machine Learning / Artificial Intelligence / Data Science / Algorithms / Probability & Statistics / Optimization Theory / Natural Language Processing / User Interfaces

Cognitive Science
Brain Evolution / Cognitive Neuroscience / Linguistics / Philosophy of Mind / Perception / History of Information / Stigma & Prejudice