

Matthew Jörke

EDUCATION

University of California, Berkeley // Aug 2015–Dec 2019
Computer Science (B.A.) & Cognitive Science (B.A.), GPA: 3.99
Awards: EECS Honors Program, Dean's Honors List, Kraft Award

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

EXPERIENCE

Human–Computer Interaction Research Assistant // Feb 2018–Present
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
- ▶ Designed all visualizations and figures for the final submission
- ▶ Researched DTW clustering & pattern mining techniques to improve performance and accuracy of algorithms employed in the study

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




Cognitive Neuroscience Research Assistant // 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 Research Assistant // Jan 2016–May 2016
Knight Lab, UC Berkeley

- ▶ Identified surgical electrodes in MRI/CT scan data from epileptic patients for later use in study evaluations

CONTACT

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SKILLS

Languages

English (*native fluency*)
German (*native fluency*)
Spanish (*7 years*)

Programming

Python [`numpy`, `scikit-learn`,
`pandas`, `tensorflow`, `keras`]
HTML / CSS / Javascript [`node.js`,
`paper.js`, `anime.js`]
Java / SQL / MATLAB

Coursework / Interests

Machine Learning / Data Science / Algorithms / Probability & Statistics / Optimization Theory

Human–Computer Interaction / Interaction Design / Human Perception / Cognitive Neuroscience / Linguistics

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).