KATIE CHENG

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EDUCATION

Ph.D. Education **Stanford University** **2014 – 2020**
- Concentration in Learning Sciences and Technology Design
- Concentration in Developmental and Psychological Sciences

M.S. Computer Science **Stanford University** **2016 – 2018**
- Concentration in Human Computer Interaction

B.A. Cognitive Science **UC Berkeley** **2008 – 2011**
- Concentration in Cognitive Neuroscience, awarded High Honors

PROFESSIONAL EXPERIENCE

Graduate Researcher **Stanford AAA Learning and Behavior Lab** **2014 – 2020**
- Conducted experimental studies to test instructional techniques in STEM domains, and longitudinal intervention studies to teach effective learning strategies to undergraduate students
- Performed ethnographic fieldwork, observations, and interviews to investigate various learning environments
- Designed and implemented surveys to understand user preferences in mobile technologies
- Ran user studies to inform interface and interaction design of web and mobile apps

Research Assistant **Stanford Cognitive and Systems Neuroscience Lab** **2012 – 2014**
- Designed and implemented longitudinal behavioral and fMRI research protocols to research brain systems, math, and language learning in children with and without autism spectrum disorders

Undergraduate Researcher **D'Esposito Cognitive Neuroscience Lab** **2009 – 2012**
- Created, populated, and managed the D'Esposito Gene Database with saliva samples, behavioral data, and fMRI imaging data from over 200 human subject participants

Undergraduate Researcher **Knight Cognitive Neuroscience Lab** **2010 – 2011**
- Created three-dimensional image reconstructions of ECoG electrode grids implanted on brains of epilepsy patients.

PUBLICATIONS & PRESENTATIONS

- Apps with Benefits: Using Benefits and Burdens to Predict Mobile App Usage, Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing, 1st author **2017**
- Perspectives on learning with multimodal technology, The Handbook of Multimodal-Multisensor Interfaces, 4th author **2017**
- The half empty question for socio-cognitive interventions, Journal of Educational Psychology, 2nd author **2016**
- Neural circuits underlying mother's voice perception predict social communication abilities in children, Proceedings of the National Academy of Sciences, 4th author **2016**
- Brain State Differentiation and Behavioral Inflexibility in Autism, Cerebral Cortex, 4th author **2014**
- Underconnectivity between voice-selective cortex and reward circuitry in children with autism, Proceedings of the National Academy of Sciences, 3rd author **2013**

TECHNICAL EXPERIENCE

Statistical methods
- clustering, factor analysis, LASSO regression, random forests, multivariate regression, ANOVA, correlation, t-test

Languages & Technologies
- Python, C++, JavaScript, Bash, SQL, HTML/CSS, R, SPSS, Stata, Matlab

Research methods
- Qualitative interviewing, ethnographic observation, survey design, experimental design, user experience research, user interface design, interaction design