SOPHIE(XING) SU

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EDUCATION

Washington University in Saint Louis *Aug 2021 - present*
Ph.D. in Psychology GPA:4.00
Master in Psychology
Advisor: Dr.Jeff Zacks

Cornell University *July 2017 - May 2019*
Bachelor of Arts in Psychology and Economics GPA:3.799
cum laude in Psychology, Distinction in all subjects

China University of Political Science and Law *September 2015 - June 2017**
Majored in Applied Psychology GPA 4.03, Top 10% of the class
*Transferred to Cornell University after sophomore year

RELEVANT COURSEWORK & CERTIFICATIONS

• **Certifications**: Graduate Certificate in Quantitative Data Analysis (WashU); Neural Networks & Deep Learning (Coursera); Machine Learning (Coursera)

• **Selected Courseworks**:Biological Neural Computation, Advanced Cognitive Computational and Systems Neuroscience, Hierarchical Linear Models, Applied Multivariate Analysis,Neural Systems, Quantitative Methods, Research Designs and Methods, Linear Algebra

SKILLS

• Programming languages: R, Python,Bash, MATLAB, HTML

• Softwares: SPSS, Excel, Freesurfer, AFNI, FSL, REDCap, FileMaker, Qualtrics

• Languages: Chinese (native), English (near-native)

PUBLICATION

• **Su,X.**& Zacks,J. In preparation. Predictive looking and predictive looking errors.

• **Su,X.**& Swallow,K. In preparation. People can reliably detect action changes and goal changes during naturalistic perception.

• Koirala, N., Perdue, M. V., **Su,X.**, Grigorenko, E. L., Landi, N. (2021). Neurite density and arborization is associated with reading skill and phonological processing in children. NeuroImage, 241, 118426.

• Koirala, N., Kleinman, D., Perdue, M. V., **Su,X.**, Villa, M., Grigorenko, E. L., Landi, N. (2021). Widespread effects of dMRI data quality on diffusion measures in children. Human brain mapping.

• Perdue, M., **Su,X.**, Koirala, N., Agrawal, V.& Landi, N. (2020, September). Relationships Between Gray Matter Structure and Reading Ability in a Large, Diverse Sample: Testing Age- and Sex-specific Effects (Abstract ID: 131616). Poster presented at the 2020 Flux Virtual Congress.

• Koirala,N., Perdue,M., **Su,X.**, Grigorenko,E.& Landi,N. (2019,November). Quantifying Imaging Quality for Multi-Center Data Analysis. Poster presented at the 2019 Florida Learning Disabilities Conference. Tallahassee, FL.

AWARDS & HONORS

- Psychonomic Society's 2022 Graduate Student Conference Award, $1000 — Oct.2022
- Dean's List of the College of Arts & Sciences at Cornell University — Fall 2017- Fall 2018
- Cornell Undergraduate Research Grant, $500 — 2018-2019
- Cornell Summer Experience Grant, $3000 — Summer 2018
- College Student Research Grant, Ministry of Education of China, $1200 — 2017-2018
- College Student Research Grant, Beijing Municipal Education Commission, $1000 — 2017-2018
- National Scholarship, Ministry of Education of China, $500 — 2016

RESEARCH EXPERIENCE IN PSYCHOLOGY

Dynamic Cognition Laboratory — August 2021 - present
PhD Researcher — *Principal Investigator:* **Dr.Jeff Zacks**

· Explore the relationship between event performance and event perception.
· Model prediction in visual dynamic cognition by integrating state of the art static and dynamic saliency prediction models and real people gaze patterns.
· Investigate the role of context in event perception by stimulating prediction using the extended structured event memory model in various contexts.

Haskins Laboratories — August 2019 - present
Research Associate — *Principal Investigator:* **Dr.Nicole Landi**

· Design the research plan; select, employ and assess various machine learning algorithms to identify anatomical features that are correlated to reading abilities
· Create and maintain a REDCap database of more than 2000 participants' behavior, genetics,and neuroimaging information using R and Bash script for the *Imaging Genetics in Specific Reading Disability (SRD): Meta- and Mega-analyses* project
· Work under Dr.Nabin Koirala to build an automated MRI imaging quality check pipeline by employing bash and Freesurfer scripts and building regression models using R
· Preprocess, clean, restructure and reformat neuroimaging data for future analysis using customized bash scripts on high performance computing linux clusters
· Reorganize, restructure and standardize behavior data of more than 2000's participants across different sites
· Organize weekly lab meeting of research ideas and progress

Attention, Memory & Perception lab at Cornell University — Jan 2018- May 2019
Honors Thesis Student — *Principle Investigator:* **Dr.Khena Swallow**

· Developed research question, study design, and experiment stimuli under the supervision of Dr.Khena Swallow
· Coded experiment stimuli using Matlab, administered the experiments to 120 Undergraduate students and analyzed the behavior data collected using R
· Presented this project at the 2019 Cornell Undergraduate Psychology Conference
· Coded event segmentation cues in experiment stimuli using Cowlog
· Participated in weekly lab meeting, presented research ideas and literature reviews

Child's Witness & Cognition Lab at Cornell University Jan 2018 - August 2018
Research Assistant *Principle Investigator:* **Dr.Stephen J. Ceci**

- Worked under Dr.Kayla Burd to compare different types of verdict procedures and the impact of requiring reasoned verdicts on the jury's decision making process
- Edited the mock case used in the experiment by counterbalancing various cognitive cues using Qualtrics
- Coded and analyzed mock jurors' qualitative data to determine the impact of jury verdict procedure on jurors' decision making and judgement

SNAP lab at Stanford University June 2018 - August 2018
Summer Research Assistant *Principle Investigator:* **Dr.Ian Gotlib**

- Analyzed fornix Diffusion tensor imaging data to explore the relationship of fornix development and early life stress using R
- Assisted with magnetic Resonance Imaging data acquisition, quality check and preprocessing using neuroimaging processing software such as Freesurfer and MrDiffusion
- Assisted Dr.Tiffany Ho with generating, editing fornix diffusion tensor imaging data of 200 adolescents
- Assisted Dr.Emily Dennis with identifying amygdala and hippocampus of 2-years old's magnetic Resonance Imaging structure imaging

Wang's lab at China University of Political Science and Law June 2016 - June 2017
Research Assistant *Principle Investigator:* **Dr.Guofang Wang**

- Conducted an independent study on the relationship between social media use and political polarization
- Developed the experiment using E-Prime, collected survey data from 400 participants using Qualtrics
- Analyzed the data using SPSS, co-wrote the project report

REFERENCES

Dr.Jeff Zacks, Washington University in Saint Louis

Email: jzacks@wustl.edu, 314-935-8454

Dr. Nicole Landi, Haskins Laboratories

Email: nicole.landi@yale.edu,203-988-8963

Dr. Khena Swallow, Cornell University,

Email:kms424@cornell.edu,607-255-4387