Ruiqi Chen

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# Education

## Bachelor of Science | Peking University, Beijing, China 2017.9 - Present

* Major: Intelligence Science and Technology, Department of Machine Intelligence
* Overall GPA: 3.56/4.0 (84.7/100)

# Research Experience

## IDG/McGovern Institute for Brain Research | Peking University 2018.9 - Present

* Advisor: Prof. Huan Luo (PI)
* **EEG data analysis practice** (Link: pending) 2019.3
  + Implemented an inverted encoding model based on the EEG data collected in a visual working memory task
  + Reconstructed the tuning curve for the orientation of two Gabor stimuli
  + Practiced Matlab programming, basic EEG data processing, and multivariate pattern analysis
* **Project: The representation of time and order in working memory** 2019.4 – Present
  + Completed a review with over 11,000 Chinese characters about the temporal organization of visual working memory (Link: pending)
  + Read dozens of articles on the same topic in auditory-verbal modality (ongoing)
  + Currently designing an EEG experiment to explore the function of underlying neural oscillations during the temporal organization process

# Relevant Courses

## Probability Theory and Statistics (90/100)

* Basic statistical tools including estimation, hypothesis testing, ANOVA, and regression

## Computational Perception and Scene Analysis (86/100)

* Physiological, psychological and computational models for vision and audition, the latter covering neural pathway, pitch encoding, source localization, auditory scene analysis, and speech perception

## Experimental Psychology (90/100)

* Including experiment design, psychophysical methods, sensation and perception, language, etc.

## Practice of Data Structure and Algorithm (87/100)

* C++ implementation of graph algorithms including network flow, shortest path, interval tree, etc.

# Skills

* **Programming**: machine learning algorithms (SVM, neural network, decision tree, etc.), basic and graph algorithms (Dijkstra, Dinic, Tarjan, etc.); skilled in C/C++, Python, Matlab
* **EEG data analysis**: ERP, spectrotemporal analysis, multivariate pattern analysis
* **English**: TOEFL 106(Speaking 24), CET6 618