Meng Du

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EDUCATION

University of Michigan, Ann Arbor Sep. 2013 – Dec. 2015
Bachelor of Science (with Honors) GPA 3.5/4.0
Major in *Computer Science* and *Biopsychology, Cognition, Neuroscience (BCN)*

Beijing Normal University (Transferred) Sep. 2010 – July 2012
School of Psychology GPA 85/100
Studied Abroad at the Univ. of Minnesota (Twin Cities) Sep. 2012 – May 2013
2012 Fall Study Abroad Foundation Scholarship GPA 4.0/4.0

COURSE HIGHLIGHTS

Theory of Neural Computation
Cognition, Computation and Brain
Data Mining (with R)
Machine Learning (with Python)
Artificial Intelligence
Adv. Object-Oriented Programming
Psychological Statistics (with SPSS)

RESEARCH EXPERIENCE

UCLA Department of Psychology PIs: Dr. Carolyn Parkinson, Dr. Matt Lieberman **July 2016 – Present**

- Leading or assisting with multiple neuroimaging and behavioral studies in social neuroscience. Contributed to research ideas, prepared materials, implemented experiments with Python or HTML/CSS/JavaScript, iteratively tested and improved study designs, collected behavioral, eye-tracking and fMRI data, analyzed and visualized data with Python/R/FMRIPREP/AFNI/FSL/PyMVPA/PySurfer, and prepared manuscripts for publications and a conference poster.
- Analyzing patterns of data with techniques including reinforcement learning models and multivariate pattern analysis.
- Developing a Python package with GUI based on NeuroSynth, in order to rank the average posterior probabilities of all Neurosynth terms within any given ROI, and compare the probabilities for multiple composite terms against each other.
- Developed general-purpose software tools for data analysis and experiment presentation (e.g. a PsychoPy starter kit).

Princeton Social Neuroscience Lab, Princeton University PI: Dr. Diana Tamir **June 2016 – July 2016**

- Built websites for two online behavioral studies with HTML/CSS/JavaScript and cloud databases, which allowed participants to complete a choice reaction time task and an emotion drawing task online.

Culture and Cognition Lab, Univ. of Michigan PI: Dr. Shinobu Kitayama **Sep. 2013 – Aug. 2016**

- Coordinated with researchers in Singapore and US on a large-scale research on gene and cultural difference. Translated questionnaires to Chinese, designed and built a network drawing website for online data collection, collected data both in Beijing and online, and analyzed the behavioral and genetic data. Completed an honor thesis based on partial results.
- Assisted with EEG/ERPs data collection and analysis.

Univ. of Michigan Department of Psychology PI: Dr. Kevin Miller **Feb. 2016 – Apr. 2016**

- Developed a multi-threaded Python plugin for OpenSesame (with PyGaze and the Eye Tribe), which allowed two or more eye trackers to share eye movement data remotely in real time.

Univ. of Michigan Computer Science & Engineering Division PI: Dr. Emily Provost **May. 2014 – Oct. 2014**

- Collected speech data and feedbacks from aphasic patients to enhance a therapy app.

Univ. of Minnesota Department of Psychology PI: Dr. Wilma Koutstaal **Jan. 2013 – May 2013**

- Assisted with behavioral data collection, subject management and data analysis for memory and perception studies.

Univ. of Minnesota Department of Psychology PI: Dr. Cheryl Olman **Sep. 2012 – Dec. 2012**

- Learned the basics of human visual perception and fMRI; practiced retinotopic mapping with FreeSurfer.

Beijing Normal Univ. Department of Psychology PI: Dr. Renlai Zhou **Sep. 2011 – June 2012**

- Assisted with behavioral data collection, subject management and data analysis in studies on working memory training.

PUBLICATIONS

- **Du, M.**, Basyouni, R., Parkinson, C. (in prep). Shared Neural Architecture for Navigating Space and Social Hierarchies.
- **Du, M.***, Weaverdyck, M. E.*, Li, Y., Chang, L. J., Parkinson, C. (in prep). Social Network Knowledge Shapes and is Shaped by Trust Behavior.
- Lieberman, M. D., Straccia, M. A., Meghan, M. L., **Du, M.**, Tan, K. M. (in review). Social, Self, (Situational), and Affective Processes in Medial Prefrontal Cortex (MPFC): Causal, Multivariate, and Reverse Inference Evidence. Neuroscience & Biobehavioral Reviews.

CONFERENCE POSTERS

- **Du, M.**, Basyouni, R., Parkinson, C. (2018). Shared neural architecture for navigating space and social hierarchies. Poster presented at the 2018 Meeting of the Social and Affective Neuroscience Society, Brooklyn, NY.
- Li, Y., **Du, M.**, & Parkinson, C. (2018). The relationships between Social Network Attributes and Behavioral Tendencies. Poster presented during the 2018 UCLA Undergraduate Research Week, Los Angeles, CA.
- Castro, V., **Du, M.**, Sul, S., & Parkinson, C. (2018). How well would you treat a friend-of-a-friend? The effects of third-party relationship knowledge on prosocial behavior. Poster presented at the 2018 Annual Convention of the Society for Personality and Social Psychology, Atlanta, GA, USA.
- Hitokoto, H., Glazer, J., **Du, M.**, & Kitayama, S. (2015). "Aren't You More Motivated When Watched?" Culture Moderates the Face-Priming Effect on FRN. Poster presented at the Society for Personality and Social Psychology 2015 Annual Convention, Long Beach, CA.

TECHNICAL & EXTRACURRICULAR EXPERIENCE

Android App Project: Decidable **Feb. 2016 – Mar. 2016**

- Initiated the project and led a team to develop an app that helps people crowd-source the decisions they cannot make.

Computer Science Tutor **Jan. 2016 – Apr. 2016**

- Tutored two undergraduate students at the Univ. of Michigan discrete math, data structures and algorithms in C++.

Freelance Software Developer **Sep. 2015 – Feb. 2016**

Pigment Incubator; AdHackers, LLC

- Designed a professional networking website for artists with a start-up team. Developed the frontend framework in AngularJS, and managed its communications with the Spring backend in REST API.
- Implemented and tested a hybrid mobile application using AngularJS, Ionic and Cordova.

Software Engineering Intern **May 2015 – Aug. 2015**

LiveRamp (acquired by Acxiom Co.)

- Developed cross-team APIs for the Java backend with the Apache Thrift framework, and improved the corresponding Ruby-on-Rails frontend to use the APIs for higher usability and better error-checking.
- Investigated code base and wrote bash/Java Cascading scripts to automatically diagnose errors in Hadoop workflows.
- Built a chrome extension for easy knowledge base access, which won the best hackathon project for people.

Software Engineering Intern — Jan. 2015 – Apr. 2015

Deque Systems, Inc.

- Assisted with the developing and testing of an XCode plugin to help developers create iOS apps with better accessibility.
- Developed test cases for an instructional iOS app "Accessibility 101" and helped maintain its documentation.

Programmer — May. 2014 – Dec. 2014

MiWorkspace Windows team, Univ. of Michigan Information and Technology Services

- Accelerated automatic software deployment with Windows command line and PowerShell scripts.
- Collaborated with the Windows team on applications testing, trouble-shooting and system administration.

Android App Project: Evento — Sep. 2014 – Dec. 2014

- Utilized text recognition to automatically parse events from photos of flyers to organized calendar events.

Food Shelf Volunteer — Oct. 2012 – Jan 2013

Dorothy Day Center, Catholic Charities of St. Paul and Minneapolis

- Filled the homeless clients' food orders and helped with food intake and organizing.

Publicity Chair — Sep. 2011 – June 2012

School of Psychology Student Union, Beijing Normal University; Psychological Health Association, Beijing Normal University

- Led a team to design posters and other publicity materials for university-wide and intercollegiate student activities.
- Gave talks on graphic design skills, managed and allocated works to members, and participated in event planning.

AWARDS & HONORS

LSA Honors Grants (University of Michigan)	Mar. 2015
University Honors (University of Michigan)	2013, 2014, 2015
Dean's List (University of Minnesota)	2012, 2013
Study Abroad Foundation Scholarship	Sep. 2012

SKILLS

- **Computer:**
  - Advanced skills in C/C++ (30+ projects, 15k+ lines), Python (20+ projects, 8k+ lines), HTML/CSS/JavaScript (10+ websites, 12k+ lines), bash scripts, R and Java.
  - Intermediate skills in MATLAB, relational databases, Objective-C, Ruby on Rails, etc.
  - Proficiency with Git (30+ repositories, 1k+ commits), web scraping, high performance clusters, and development on Linux/Unix, Windows and Android systems.
  - Familiar with various data structures, algorithms (including machine learning algorithms) and design patterns.
  - Familiar with the analysis and visualization of behavioral and neuroimaging data in Python and R.
- **Neuroimaging:**
  - Safety certified at UCLA Brain Mapping Center and Staglin IMHRO Center for Cognitive Neuroscience.
  - Familiar with fMRI data collection, preprocessing and analysis with multiple software packages (e.g. FMRIPREP, FSL, AFNI, etc.), and NeuroSynth meta-analysis.