PENG DENG

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EDUCATION

Master of Arts | *Language Sciences (subfield: Psycholinguistics)* Oct. 2019 – Sept. 2021
Tohoku University Sendai, Japan

Bachelor of Arts | *English* Sept. 2015 – June 2019
Hohai University Nanjing, China

RESEARCH EXPERIENCE

Masked Identity Priming in Japanese-English Developing Bilinguals July 2020 – Present
Tohoku University

- Have tested experimental stimuli using DMDX and run pilot experiments consisting of 20 trials
- Have developed and optimized R scripts to facilitate statistical analysis, processing 10,000+ reaction time data points
- Have created data visualizations, interpreted results, and authored manuscript drafts with preliminary findings for submission

Visual Recognition of Chinese Characters Mar. 2020 – Sept. 2020
Tohoku University

- Designed and implemented experimental stimuli using TrueType, DMDX, and Python, creating 200+ prime-target pairs
- Recruited and managed 100+ participants through university networks and social media
- Conducted statistical analysis using R to process 10,000+ reaction time data points
- Presented research findings at conferences

WORK IN PROGRESS

Masked Identity Priming Effects With Low Proficient L2 Readers

Peng Deng, Jessie Wanner-Kawahara, Mariko Nakayama

CONFERENCES AND PRESENTATIONS

Visual Chinese Character Recognition: Is a Stroke Neighbor Priming Effect Facilitatory or Inhibitory?
ARWA 2020 Conference (Sept. 2020)

Stroke Neighbor Priming Effect: An Investigation Using Chinese Hanzi and Japanese Kanji Characters
Virtual Psychonomics 2020 Annual Meeting (Nov. 2020)

PROJECTS

Interactive Visualization of US Citizen Health Trends Oct. 2024 – Nov. 2024
Independent Project

- Processed and cleaned large-scale CDC health datasets using pandas and numpy
- Designed and developed a D3.js-powered interactive visualization illustrating health trends across states in the US from 2014 to 2023
- Implemented dynamic filters for year, condition, and gender to enable real-time data exploration
- Created an intuitive user interface with interactive sliders and drop-downs, enhancing accessibility for non-technical users

YouTube Video Analysis and Visualization Aug. 2024 – Oct. 2024
Independent Project

- Developed a Python tool for analyzing YouTube metadata using yt‑dlp and pandas, enabling efficient data extraction and manipulation
- Designed NLP workflows with spaCy to extract, clean, and analyze video tags to uncovering trends and their impact on video performance

- Created interactive dashboards with plotly to visualize patterns in video engagement metrics, generating shareable HTML reports

AI-Powered Fake News Debunker
Aug. 2024 – Oct. 2024

Independent Project

- Built a Python-based fake news detection tool using a fine-tuned RoBERTa model for binary classification
- Extracted and analyzed key terms from the WELFake dataset with TfidfVectorizer, enhancing identification of suspicious content
- Utilized OpenAI's ChatGPT API to provide users with suggestions on directions for further fact-checking
- Built an interactive interface with Gradio for real-time news input evaluation and credibility scoring

WORK EXPERIENCE

Health Writer
Oct. 2018 – Present

Sanlian Lifeweek, Dingxiang Doctor, NetEase

- Pitched and explored health topics of public interest, offering well-researched, nuanced perspectives
- Authored multiple health science articles, averaging 100,000 views
- Simplified complex scientific research into accessible narratives, ensuring clarity and reliability

Research Assistant
July 2020 – Aug. 2021

Tohoku University

- Assisted in designing psycholinguistic experiments under the guidance of the principal investigator
- Prepared experimental stimuli using DMDX and Python
- Recruited participants and coordinated data collection sessions
- Supported the principal investigator in reviewing manuscripts as part of the peer-review process

Teaching Assistant
Apr. 2020 – Aug. 2021

Tohoku University

- Graded assignments and provided detailed, constructive feedback to improve students' understanding of coursework
- Evaluated students' performance and generated reports to support course objectives
- Designed and implemented online exams using Google Forms, ensuring accessibility and integrity in a remote learning environment
- Provided one-on-one support to students, addressing individual challenges in coursework and research projects

CERTIFICATES

Neuroscience and Neuroimaging Specialization (Coursera)
Johns Hopkins University

Statistics with Python Specialization (Coursera)
University of Michigan

Python 3 Programming Specialization (Coursera)
University of Michigan

HONORS AND AWARDS

Monbukagakusho Honors Scholarship for Privately-Financed International Students
2019 – 2020

SKILLS

Languages: Mandarin (Native), Cantonese (Fluent), English (Fluent), Japanese (Basic)
Programming: Python, R, MATLAB, Processing, JavaScript
Document Creation: Microsoft Office Suite, LaTeX, HTML