# DANIEL R. McCLOY

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## OVERVIEW

I am a scientist trained in acoustic phonetics, speech perception, and auditory neuroscience, and a developer of open-source scientific software. My interest broadly centers on the perception and representation of speech sounds. I am a certified Software Carpentry instructor and a skilled writer of tutorials and documentation. **Current position:** Research Scientist at the University of Washington's Institute for Learning & Brain Sciences.

## EDUCATION

### ACADEMIC DEGREES

- PhD in Linguistics (University of Washington, 2013, PDF).
- MA in Linguistics (University of Washington, 2009, PDF).
- BS in Neurobiology, BA in Philosophy (University of Washington, 2002).

### OTHER EDUCATION

- Postdoctoral training in psychophysics and auditory neuroscience (LABS^N, 2013-2018).
- Kavli Summer Institute in Cognitive Neuroscience (UC Santa Barbara, 2017).
- Machine Learning (Stanford University / Coursera, 2016).
- International Chinese Language Program (National Taiwan University, 2008).

## TECHNICAL SKILLS

- **Programming**: Python, R, Praat, Bash, GNU Make, Octave/MATLAB.
- **Scientific computing**: git/GitHub, remote/cloud computing, machine learning, data visualization.
- **Research hardware**: Pupillometry, eye tracking, EEG, MEG, microphones, audio processors.
- **Document generation**: Pandoc, Markdown, RMarkdown, LaTeX, Beamer, HTML, CSS.

## RESEARCH PRODUCTS

Structured bibliographic information is available in this BibTeX file. *Omitted here:* invited talks (3), conference proceedings (4), technical reports (1), conference presentations (13).

### PEER-REVIEWED ARTICLES (12 TOTAL, 7 FIRST-AUTHORED)

- O'Brien, **McCloy** & Yeatman (2019). *J. Acoust. Soc. Am.*, *146*(1), 245–255. (DOI | preprint | repo)
- **McCloy** & Lee (2019). *Lang. Cogn. Neurosci.*, *34*(5), 662–676. (DOI | suppl. | preprint | repo)
- **McCloy**, Larson & Lee (2018). *J. Acoust. Soc. Am.*, *144*(5), 2764–2771. (DOI | suppl. | preprint | repo)
- O'Brien, **McCloy**, Kubota & Yeatman (2018). *Sci. Rep.*, *8*(1), 16842. (DOI | preprint | repo)
- **McCloy**, Lau, Larson, Pratt & Lee (2017). *J. Acoust. Soc. Am.*, *141*(4), 2440–2451. (DOI | suppl. | preprint | repo)
- Hasegawa-Johnson, Jyothi, **McCloy**, Mirbagheri, di Liberto, Das, Ekin, Liu, Manohar, Tang, Lalor, Chen, Hager, Kekona, Sloan & Lee (2017). *IEEE/ACM Trans. Audio, Speech, Lang. Process.*, *25*(1), 46–59. (DOI | preprint | repo)
- **McCloy**, Larson, Lau & Lee (2016). *J. Acoust. Soc. Am.*, *139*(3), EL57–EL62. (DOI | preprint | repo)
- **McCloy** & Lee (2015). *J. Acoust. Soc. Am.*, *138*(1), 97–114. (DOI | preprint | repo)
- **McCloy**, Wright & Souza (2015). *Lang. Speech*, *58*(3), 371–386. (DOI | preprint)
- Barrack, **McCloy** & Wright (2014). *Indogermanische Forschungen*, *119*(1), 149–158. (DOI | preprint)
- Souza, Gehani, Wright & **McCloy** (2013). *J. Amer. Acad. Audiol.*, *24*, 689–700. (DOI | preprint)
- Moran, **McCloy** & Wright (2012). *Language*, *88*(4), 877–893. (DOI | preprint | data and code (.zip))

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### SOFTWARE & CORPORA

- **Core developer** of MNE-Python: analyze & visualize EEG & MEG data. (repo)
- **Developer** of phonR: visualize & analyze vowels in R. (repo | CRAN)
- **Developer** of Praat Semi-Auto: streamline manual measurements in acoustic phonetics (repo)
- **Co-developer** of expyfun: run psychophysics experiments in Python. (repo)
- **Co-developer** of PHOIBLE: a database of over 3000 phonological inventories. (repo | docs)
- **Co-developer** of UW/NU Corpus: a 2-dialect, 20-talker corpus of 200 parallel sentences of English.

## TEACHING EXPERIENCE

- **Instructor**: Software Carpentry Workshops "The Unix shell", "Version control with git", "Programming with Python", "R for reproducible scientific analysis" (UW eScience Institute: 2016, 2017, 2018, 2019; Benaroya Research Institute: 2020).
- **Instructor**: Introduction to Phonetics (2010, 2011).
- **Teaching Assistant**: Introduction to Linguistics, four sections (2008–2009).
- **Co-facilitator**: "New Majors" proseminar for incoming Philosophy students (2001, 2002).

## ACADEMIC SERVICE

### CONFERENCE & COMMITTEE SERVICE

- **Member**: LSA Committee on Scholarly Communication in Linguistics (2013–2018).
- **Session organizer**: "Quantitative Methodology in Physiological and Psychophysical Data Analysis," 171st Meeting of the Acoustical Society of America, Salt Lake City (2016).
- **Conference chair**: 24th Northwest Linguistics Conference, Seattle (2008).
- **Referee**: LSA Annual meeting (2014, 2016), Northwest Linguistics Conference (2008, 2012).

### MENTORSHIP & OUTREACH

- **Organizer**: MNE-Python New Developers Code Sprint (forthcoming, March 2021).
- **Mentor**: 2 graduate students, 1 undergraduate, and 3 high school students (2011-2019).
- **Volunteer**: Pacific Science Center's Paws On Science Weekend (2016).

## GRANTS, FELLOWSHIPS, AND AWARDS

- "Improving Usability of Core Neuroscience Analysis Tools with MNE-Python", CZI Essential Open Source Software for Science (2020-2021).
- Postdoctoral fellowship (NIH T32), UW Auditory Neuroscience Training Program (2016–2018).
- NIH LRP award (2014–2016).
- Postdoctoral fellowship (NIH T32), UW Department of Speech and Hearing Sciences (2013–2014).
- "Research Excellence Award," UW Department of Linguistics (2013).
- FLAS fellowship, Modern Standard Chinese, U.S. Department of Education (2007–2008).

## PROFESSIONAL AND SCHOLARLY AFFILIATIONS

International Phonetic Association (2014–present), Acoustical Society of America (2011–present), Linguistic Society of America (2009–present), Association for Research in Otolaryngology (2014–2018), *Phi Beta Kappa* (2002–present).