

OVERVIEW

I am a scientist trained in acoustic phonetics, speech perception, and auditory neuroscience, and a developer of open-source scientific software. My interest is 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](#), where I analyze magnetoencephalography (MEG) data relating to literacy and dyslexia, and contribute to the development of [MNE-Python](#) neuroscience analysis software.

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).

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).

TECHNICAL SKILLS

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

SOFTWARE & CORPORA

- **Core developer on Steering Council** of [MNE-Python](#): human neurophysiology analysis. ([repo](#))
- **Co-creator** of [PHOIBLE](#): a database of over 3000 phonological inventories. ([repo](#))
- **Co-creator** of [UW/NU Corpus](#): a 2-dialect, 20-talker corpus of 200 parallel sentences of English.
- **Co-creator** of [expyfun](#): run psychophysics experiments in Python. ([repo](#))
- **Creator** of [phonR](#): analyze & visualize vowels in R. ([repo](#) | [CRAN](#))
- **Creator** of “Praat Semi-Auto”: scripts to streamline manual measurements in acoustic phonetics, when automated methods are not precise enough. ([repo](#))

PEER-REVIEWED ARTICLES (13 TOTAL, 6 FIRST-AUTHORED)

Omitted here: 3 invited talks, 4 conference proceedings, 1 technical report, 13 conference presentations. [BibTeX version available here.](#)

- Emmons, Lee, Estes, Dager, Larson, **McCloy**, St. John & Lau (in press). *J. Autism Dev. Disord.* ([DOI](#) | [preprint](#))
- 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 \(.zip\)](#))

ACADEMIC SERVICE: CONFERENCES & COMMITTEES

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

ACADEMIC SERVICE: MENTORSHIP & OUTREACH

- **Organizer:** MNE-Python [New Developers Code Sprint](#) (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).