

Maedbh King

· PH.D. CANDIDATE ·

67 Glen Avenue, #202, Oakland, CA, USA

☎ (510) 570-5306 | ✉ maedbhking@gmail.com | 🌐 www.maedbhking.com | 📷 maedbhk | 🌐 maedbhking | 🎓 Maedbh King

Summary

Current Ph.D. candidate in Cognitive Neuroscience at the University of California, Berkeley. 5+ years experience doing neuroimaging research, building predictive models of brain function. Passionate about science policy and improving transparency and accountability in academia.

Education

University of California, Berkeley

Berkeley, California

PH.D. IN COGNITIVE NEUROSCIENCE (GPA: 3.96/4.00)

Sep. 2017 - Expected: May. 2022

- **Advisor: Richard Ivry, Ph.D.**
- Applied Data Science Certificate, School of Information. Awards: Mark R. Rosenzweig Graduate Fellowship (2021); Cognitive Computational Neuroscience Travel Award (2020)

Western University

London, Ontario

M.Sc. IN NEUROSCIENCE (GPA: 4.0)

Sep. 2015 - May. 2017

- **Advisor: Joern Diedrichsen, Ph.D.** Awards: Gordon Cerebellum Student Travel Award (2017)

Trinity College Dublin

Dublin, Ireland

B.A. IN PSYCHOLOGY AND FRENCH (DOUBLE MAJOR; GPA: 4.0)

Sep. 2010 - May. 2014

- **Advisor: Redmond O'Connell, Ph.D.** Awards: Irish Research Council Postgraduate Scholarship (2015); Ussher Fellowship, Trinity College Dublin (2015); US Fulbright Program (shortlisted); Wellcome Trust Biomedical Scholarship (2014); Entrance Scholarship, Trinity College Dublin

Work Experience

Thesis: Mapping cerebro-cerebellar networks of the human brain during learning

[Github \[Link\]](#)

GRADUATE STUDENT RESEARCHER (2017-)

University of California, Berkeley

- The aim of my thesis is to use *machine learning* to predict cognitive function across learning in the *human cerebellum* using features from the *cerebral cortex*.
- Led a team of 9 (3 Ph.D. students, 5 research assistants, 1 postbac student) to design and collect 300 experimental hours of fMRI and eye-tracking data.
- Created a widely adopted *mentorship agreement* for research assistants to ensure *transparency and accountability* in mentoring practices. Co-led a *journal club* for undergraduate research assistants, *instructing* them on the *scientific method*.
- Mentored two undergraduate students in designing and writing up honors thesis projects. One student was awarded a Swann prize for their work. Prioritized recruitment of research assistants from *marginalized demographics*.

Thesis: Understanding the functional organization of the human cerebellum

[Paper \[Link\]](#)

GRADUATE STUDENT RESEARCHER (2015-2017)

Western University

- My thesis used *machine learning* to map cognitive sub-domains of the human cerebellum.
- Led a team of 2 (1 research assistant and one post-doctoral fellow) to design and collect a 26-task fMRI experiment.
- Initiated a collaboration with scientists from Stanford University to use *natural language processing and regularized regression* to assign cognitive labels (*cognitiveatlas.org*) to the human cerebellum.
- Invested in *open-source science*. My data, which are publicly available on *openneuro.org*, have been downloaded by *hundreds of researchers*.

Public Service & Outreach

POLICY

Graduate Assembly Students of Psychology

Member and RSO Signatory

UNIVERSITY OF CALIFORNIA, BERKELEY

Sep. 2018 -

- Co-organized *faculty fundraisers* in Silicon Valley as well as Psychology "Big Give" to fund-raise for Berkeley Psychology.
- Assembled *working committee* to create policy to improve *lab culture* and mentor-mentee relationships, co-wrote *mentorship and lab policy agreements* resulting in new departmental *policies*.
- Created, managed, and edited Berkeley Psychology blog to *spotlight* graduate student research.
- Co-founded and operated Twitter account for Berkeley Psychology.
- Writer and contributor of Berkeley Psychology newsletter.
- Data analysis, statistics and visualization for Berkeley Psychology state of the department annual meeting.

Schulich School of Medicine Graduate Council

WESTERN UNIVERSITY

- Oversaw a *budget of \$5000*, did note-taking at biweekly meetings, and *voted on council plans*.

Secretary

2015 - 2016

Niteline (Student Helpline)

TRINITY COLLEGE, DUBLIN

- *Publicized* student helpline services at *national events* and fund-raised to increase the yearly budget.

Publicity Officer

2011 - 2013

EDUCATION

Prison University Project

RICHMOND, CALIFORNIA

- *Designed and lectured* a course in General Psychology to incarcerated students in *San Quentin State Prison*.
- Created care packages and holiday art for incarcerated people in California prisons during the *COVID-19 pandemic*.

Volunteer and Lecturer

Sep. 2019 - Mar. 2021

Bay Area Scientists in Schools (BASIS)

UNIVERSITY OF CALIFORNIA, BERKELEY

- *Presented* multiple lectures on the "Feel Human Brains" to *elementary school children* in Bay Area schools.

Volunteer

Jan. 2018 - Jan. 2020

Journal of European Psychology Students

EUROPEAN FEDERATION OF PSYCHOLOGY STUDENTS' ASSOCIATION

- *Edited* research/review paper submissions, *recruited* reviewers, copy editors, and *communicated* decision outcomes to authors.

Junior Editor

2014 - 2016

WOMEN IN STEM

Inspiring Young Women in STEM Inaugural Conference

WESTERN UNIVERSITY

- *Co-organized* the first conference, *recruited* keynote speakers, and *evaluated* student research.

Organizing Member

2016

Western Women Neuroscientists in Schools

WESTERN UNIVERSITY

- *Presented* multiple lectures on "Myths and the Brain" to *secondary school children* in London, Ontario schools.

Volunteer

Oct. 2015 - May 2017

Selected Communication

Google Scholar [Link]

- | | | |
|------|--|-------------------------|
| 2021 | Educational Symposium: Neuroanatomy for Neuroimaging , Organization for Human Brain Mapping | Video |
| 2020 | Transcriptomic Gradients Of The Human Cerebellum , BioRxiv | Paper |
| 2019 | Functional boundaries in the human cerebellum revealed by a multi-domain task battery , Nature Neuroscience | Press |
| 2019 | Graduate School Advice: What we wish we had known , Berkeley Blog | Blog |
| 2017 | Welcome to My Place, Berkeley, California , The Irish Times | Article |

Teaching

General Psychology; English Literature

LECTURER; TUTOR

Sep. - Dec. 2019; Jan - Mar. 2021

Mount Tamalpais College

San Quentin State Prison

Biological Psychology, PSYCH 110; Cognitive Neuroscience, PSYCH 127

GRADUATE STUDENT INSTRUCTOR

Aug. - Dec. 2018; Aug. - Dec. 2017

University of California, Berkeley

Berkeley, California

Introduction to Statistics, STAT 1024; Probability and Statistics, STAT 2857

GRADUATE STUDENT INSTRUCTOR

Jan. - May. 2017; Sep. - Dec. 2016

Western University

London, Ontario

Skills

Programming Languages

Python, SQL, R, MATLAB, HTML, Bash

Frameworks and Tools

Keras, OpenCV, Git, Vim, Blender, Numpy, PsychoPy, Pyglet, Pandas, NumPy, Scikit-learn, Scipy

Conceptual

High performance computing (Savio), MRI certificate from Henry H. Wheeler Jr. Brain Imaging Center

Languages

English (Native), Irish (Native), French (Proficient), German (Basic)