

Maedbh King

· PH.D. CANDIDATE ·

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Education

University of California, Berkeley

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

[Berkeley, California](#)

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

M.Sc. IN NEUROSCIENCE (GPA: 4.0)

[London, Ontario](#)

Sep. 2015 - May. 2017

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

Trinity College Dublin

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

[Dublin, Ireland](#)

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 (short-listed); Wellcome Trust Biomedical Scholarship (2014); Entrance Scholarship, Trinity College Dublin*

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.
- Passionate about **open-source science**, my data are publicly available on [openneuro.org](#). The dataset has been downloaded by **hundreds of researchers**.

Outreach

Prison University Project

[Volunteer and Lecturer](#)

RICHMOND, CALIFORNIA

Sep. 2019 - Mar. 2021

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

Graduate Assembly Students of Psychology

[Member and RSO Signatory](#)

UNIVERSITY OF CALIFORNIA, BERKELEY

Sep. 2018 -

- **Created** Berkeley Psychology blog to **spotlight** graduate student research.
- **Co-founded and operated** twitter account for Berkeley Psychology.
- **Writer/Contributor** of Berkeley Psychology **newsletter**.
- **Data analysis, statistics** and visualization for Berkeley Psychology **state of the department** annual meeting.
- Member of **fund-raising committee**, attended Berkeley Psychology faculty talks in Silicon Valley.
- Co-wrote **mentorship agreement** and **lab policy documents** with faculty to improve lab culture and mentor-mentee relationships.

Bay Area Scientists in Schools (BASIS)

UNIVERSITY OF CALIFORNIA, BERKELEY

[Volunteer](#)

Jan. 2018 - Jan. 2020

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

Inspiring Young Women in STEM Inaugural Conference

WESTERN UNIVERSITY

[Organizing Member](#)

2016

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

Western Women Neuroscientists in Schools

WESTERN UNIVERSITY

[Volunteer](#)

Oct. 2015 - May 2017

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

Schulich School of Medicine Graduate Council

WESTERN UNIVERSITY

[Secretary](#)

2015 - 2016

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

Journal of European Psychology Students

EUROPEAN FEDERATION OF PSYCHOLOGY STUDENTS' ASSOCIATION

[Junior Editor](#)

2014 - 2016

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

Niteline (Student Helpline)

TRINITY COLLEGE, DUBLIN

[Publicity Officer and Volunteer](#)

2011 - 2013

- Provided **crisis support** to students in need and **publicized** the student helpline services at **national events**.

Student-to-Student (S2S)

TRINITY COLLEGE, DUBLIN

[Peer Mentor](#)

2011 - 2012

- Provided after-school **homework support** to **children** on the autism spectrum.

Selected Writing

[Google Scholar \[Link\]](#)

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|------|--|-------------------------|
| 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 |

Mentorship

Honors Thesis Students Sienna Bruinsma (**Psychology**); Shannon Lee (**Cognitive Science**)

Research Assistants Zani Naaem (**Psychology**); Yiling Kao (**Computer Science**); Dylan Benkley (**Neuroscience**)

Ph.D. Rotation Students Amanda LeBel (**Neuroscience**); Mark Gorenstein (**Neuroscience**)

Teaching

General Psychology; English Literature

LECTURER; TUTOR

[Mount Tamalpais College](#)

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

[San Quentin State Prison](#)

Biological Psychology, PSYCH 110; Cognitive Neuroscience, PSYCH 127

GRADUATE STUDENT INSTRUCTOR

[University of California, Berkeley](#)

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

[Berkeley, California](#)

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

GRADUATE STUDENT INSTRUCTOR

[Western University](#)

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

[London, Ontario](#)

Skills

Programming Languages Python, SQL, R, MATLAB, HTML

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