

# Maedbh King, PhD

· ICoN FELLOW · MIT ·

Cambridge, MA

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## Summary

Integrative Computational Neuroscience (ICoN) Fellow at MIT developing biologically-driven risk predictors and monitors of neurodevelopmental disorders. 6+ years experience conducting hypothesis- and data-driven research, and using machine learning and statistics to build models of brain function. Strong record of publishing in scientific journals (>500 citations), and presenting at research conferences (>10 proceedings). Passionate about using my experience as an educator and academic mentor to communicate complex ideas to non-expert audiences. Strongly believe in using data-driven solutions to formulate and recommend policy.

## Education

2017-2022 **University of California, Berkeley**, Ph.D. in Cognitive Neuroscience (Psychology) (GPA: 3.97/4.00)

2017-2022 **University of California, Berkeley**, Graduate Certificate in Applied Data Science (GPA: 3.98/4.00)

2015-2017 **Western University**, M.Sc. in Neuroscience (GPA: 4.0/4.0)

2010-2014 **Trinity College Dublin**, B.A. with Honors in Psychology and French (Double Major; GPA: 4.0)

## Recognition

### SCHOLARSHIPS & FELLOWSHIPS

2022	<b>Integrative Computational Neuroscience Fellowship</b> , ICoN Center, MIT	<a href="#">Link</a>
2021	<b>Presidential Management Fellowship Finalist 2022</b> , U.S. Office of Personnel Management	<a href="#">Link</a>
2021	<b>Mark R. Rosenzweig Graduate Fellowship</b> , Department of Psychology, University of California, Berkeley	<a href="#">Link</a>
2015	<b>Government of Ireland Postgraduate Scholarship</b> , Irish Research Council	<a href="#">Link</a>
2015	<b>Ussher Fellowship</b> , Trinity College Dublin	<a href="#">Link</a>
2013	<b>Biomedical Vacation Scholarship</b> , Wellcome Trust, UK	<a href="#">Link</a>
2010	<b>Government of Ireland Scholarship (Full-Ride)</b> , Department of Education and Skills	<a href="#">Link</a>

### AWARDS

2020	<b>Cognitive Computational Neuroscience Travel Award</b> , CCN Conference	<a href="#">Link</a>
2017	<b>Gordon Cerebellum Student Travel Award</b> , Gordon Research Conferences	<a href="#">Link</a>
2014	<b>US Fulbright (Shortlisted)</b> , Fulbright Program	<a href="#">Link</a>
2010	<b>Entrance Exhibition Award</b> , Trinity College Dublin	<a href="#">Link</a>

### RESEARCH IMPACT

2020	<b>The mysterious, multifaceted cerebellum</b> , Knowable Magazine	<a href="#">Link</a>
2019	<b>Scientists map our underappreciated "little brain"</b> , University of California, Berkeley	<a href="#">Link</a>
2019	<b>New maps of the cerebellum show how our "little brain" works</b> , Psychology Today	<a href="#">Link</a>

## Experience

### ICoN Postdoctoral Fellow at MIT

[MIT Projects \[link\]](#)

USING MACHINE LEARNING TO IDENTIFY RISK PREDICTORS OF NEUROPSYCHIATRIC DISORDERS

2022-

- Adopted a transdiagnostic approach to establish how brain differences relate to cognitive difficulties in childhood. Trained an artificial neural network on a sample of 4,000 participants to capture non-linear relationships in cognitive profiles and cortical morphology data.
- Identified risk predictors for self-harm and suicide attempt in an adolescent population. Used natural language processing (NLP) to decode unstructured electronic health records and predictive modeling to identify critical features from structured clinical profiles. Overall goal is to use models to inform clinical outcomes.

### Ph.D. Graduate Student Researcher (2017-2022)

[Github \[Link\]](#)

MAPPING NETWORKS OF THE HUMAN BRAIN DURING LEARNING. PUBLICATIONS IN *Nature Neuroscience*, *Neuron*, *Brain*

*University of California, Berkeley*

- Developed machine learning pipelines to predict cognitive function in the human cerebellum during learning, tested patients with spinocerebellar ataxia on a series of cognitive tasks to assess cerebellar deficits, and analyzed post-mortem brain data to create a transcriptomic map of the cerebellum.
- Prioritized taking classes in advanced statistics and computer science to analyze high-dimensional neural data.
- Led a team of 5 to design and collect 300 experimental hours of functional magnetic resonance imaging (fMRI) data (during COVID-19 pandemic).
- Reviewed and analyzed 30 years of research to propose new theory of cerebellar function. Co-authored subsequent paper [\[link\]](#) (>70 citations).
- Co-wrote an R35 grant that received 5-year funding from the NIH. Managed an institutional review board (IRB) protocol for fMRI experiments.
- 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, data analysis, and statistics.
- Mentored two undergraduate students in designing and writing up honors thesis projects. One student was awarded a *Swan prize* [\[link\]](#) for their work, and presented at a national conference.

## M.Sc. Graduate Student Researcher (2015-2017)

*Paper [Link]*

DEVELOPING NOVEL BRAIN MAPS OF THE HUMAN CEREBELLUM. PUBLICATIONS IN *Brain*, *NeuroImage*, *Frontiers*

*Western University*

- Created a novel and highly downloaded *map* [link] of the human cerebellum using machine learning and advanced statistics.
- Led a team of 2 to design and collect a 26-task, 6-session fMRI and behavioral experiment, totaling 250 hours of data collection [link].
- Initiated a collaboration with scientists from Stanford University to use natural language processing to assign cognitive labels to the human cerebellum [link]. Developed programming pipeline for other researchers to replicate my novel approach, and wrote supporting documentation.
- Invested in open-source science. My data, which are publicly available, have been downloaded >200 times [link].

## Selected Projects

### TECHNICAL

#### SUITPy: Open-source package for the visualization of cerebellum imaging data

*Developer [Link]*

UNIVERSITY OF CALIFORNIA, BERKELEY; WESTERN UNIVERSITY

*Jan. - Sep. 2021*

- Core co-developer of SUITPy, an open-source Python library to visualize brain data. Subsequently worked as project manager to identify best programming practices for improving core functionality, resulting in record monthly installations (4-fold increase).

#### Evaluating functional boundaries of the brain using a novel distance coefficient

*Paper [Link]*

JAN. - SEP. 2021

- Co-developed a novel statistical metric to evaluate the validity of brain parcellations, an advancement on Homogeneity and Silhouette coefficients.

#### Predicting human performance using computer vision models

*Github [link]*

DEPARTMENT OF PSYCHOLOGY, UNIVERSITY OF CALIFORNIA, BERKELEY

*Jan. 2019 - Dec. 2021*

- Recorded >15 hours of varsity athletes, and implemented markerless labeling of videos to understand human performance in predicting action.

#### Low dimensional embedding of genetic gradients in the human cerebellum

*Author [Link]*

HELEN WILLS NEUROSCIENCE INSTITUTE, UNIVERSITY OF CALIFORNIA, BERKELEY

*May 2019 - Sep. 2021*

- Initiated collaboration with incoming faculty at Berkeley to investigate genetic gradients in the human cerebellum. Learned new statistical tools to analyze postmortem human brain data, and developed pipelines to streamline data preprocessing, later adopted by >5 students.

### PUBLIC HEALTH & POLICY

#### Predicting COVID-19 mortality rates across the U.S. using mobility and census data

*Author [Link]*

SCHOOL OF INFORMATION, UNIVERSITY OF CALIFORNIA, BERKELEY

*Sep. - Dec. 2020*

- Built a statistical model predicting COVID-19 deaths in the U.S. from May - Aug. 2020 using data from the U.S. Census and Google Maps mobility reports. Increased optimization of algorithm by 20-fold. Presented findings in a poster presentation to faculty in the School of Information.

#### Cross-Functional and Cross-Disciplinary Research Collaboration

*Team Leader*

UNIVERSITY OF CALIFORNIA, BERKELEY; PRINCETON UNIVERSITY; YALE UNIVERSITY

*Jan. 2019 - May. 2020*

- Implemented and maintained data warehousing for clinical research projects, established guidelines for cross-functional collaboration.

#### Ethics Protocol for MRI projects

*Manager [Link]*

COGNITION AND ACTION LAB, UNIVERSITY OF CALIFORNIA, BERKELEY

*Jan. 2018 - Dec. 2021*

- Drafted guidelines and maintained ethics protocol for institutional review board (IRB) magnetic resonance imaging (MRI) projects. Completed human research program on "Human Research: Biomedical Research Investigators", and trained 3 research assistants on the protocol.

#### Graduate Mentoring Policies

*Co-Chair [Link]*

DEPARTMENT OF PSYCHOLOGY, UNIVERSITY OF CALIFORNIA, BERKELEY

*Jan. 2020 - Sep. 2021*

- Recognized need for formal mentor-mentee agreements in the UC Berkeley psychology department. Assembled and co-led working committee to create policy to improve lab culture and mentor-mentee relationships. Recruited panelists from diverse backgrounds.
- Authored 10-page policy document on mentorship and lab policy agreements. Advised leadership on implementation of new departmental policies during quarterly climate and equity meetings. Since Sep. 2021, 35/42 faculty have created lab policy documents.

#### State of the Department Initiative

*Leader [Link]*

DEPARTMENT OF PSYCHOLOGY, UNIVERSITY OF CALIFORNIA, BERKELEY

*Apr. 2019 - Apr. 2021*

- Advisor on Berkeley Psychology state of the department annual meeting, led team to conduct data analytics and statistics to translate graduate student concerns into policy recommendations. Used data and statistics to highlight funding discrepancy between neuroscience and clinical psychology students, resulting in a 20% yearly increase in graduate student stipends.

## Papers

#### Changes in cerebro-cerebellar connectivity across learning

*In Prep*

M KING, J DIEDRICHSEN, R IVRY

*2022*

#### A task-general connectivity model reveals variation in convergence of cortical inputs to functional regions of the cerebellum

*ELife (under review)*

M KING, L SHAHSHAHANI, R IVRY, J DIEDRICHSEN

*2022*

<b>No evidence for semantic prediction deficits in patients with cerebellar degeneration</b>	<i>Neurobiology of Language</i>
M KING, S BRUINSMA, R IVRY	2022
<b>Continuous manipulation of mental representations is compromised in cerebellar degeneration</b>	<i>Brain</i>
SD McDOUGLE, J TSAY, B PITT, M KING, W SABAN, JA TAYLOR, RB IVRY	2022
<b>Predicting brain activation maps for arbitrary tasks with cognitive encoding models</b>	<i>Journal of Cognitive Neuroscience</i>
J WALTERS, M KING, P BISSETT, I IVRY, J DIEDRICHSEN, R POLDRACK	2022
<b>Evaluating brain parcellations using the distance controlled boundary coefficient</b>	<i>Human Brain Mapping</i>
D ZHI, M KING, J DIEDRICHSEN	2021
<b>Transcriptomic Gradients Of The Human Cerebellum</b>	<i>Cell Reports (Under Review)</i>
M KING, Z ZHEN, RB IVRY, KS WEINER	2020
<b>Functional boundaries in the human cerebellum revealed by a multi-domain task battery</b>	<i>Nature Neuroscience</i>
M KING, CR HERNANDEZ-CASTILLO, RA POLDRACK, RB IVRY, J DIEDRICHSEN	2019
<b>Universal transform or multiple functionality? Understanding the contribution of the human cerebellum across task domains</b>	<i>Neuron</i>
J DIEDRICHSEN, M KING, C HERNANDEZ-CASTILLO, M SERENO, RB IVRY	2019
<b>Visualizing Topographic Independent Component Analysis with Movies</b>	<i>arXiv</i>
Z CHEN, D PARVIN, M KING, S HAO	2019
<b>Unique degeneration signatures in the cerebellar cortex for spinocerebellar ataxias 2, 3, and 7</b>	<i>NeuroImage: Clinical</i>
CR HERNANDEZ-CASTILLO, M KING, J DIEDRICHSEN, J FERNANDEZ-RUIZ	2018
<b>Individual differences in resting corticospinal excitability are correlated with reaction time and GABA content in motor cortex</b>	<i>Journal of Neuroscience</i>
I GREENHOUSE, M KING, S NOAH, RJ MADDOCK, RB IVRY	2017
<b>Towards a multi-function mapping of the cerebellar cortex</b>	<i>Brain</i>
M KING, C HERNANDEZ-CASTILLO, J DIEDRICHSEN	2017
<b>Neural adaptations associated with interlimb transfer in a ballistic wrist flexion task</b>	<i>Frontiers in Human Neuroscience</i>
KL RUDDY, AK RUDOLF, B KALKMAN, M KING, A DAFFERTSHOFER, TJ CARROLL, R CARSON	2016
<b>Registered reports for student research</b>	<i>Journal of European Psychology Students</i>
M KING, F DABLANDER, L JAKOB, M AGAN, F HUBER, J HASLBECK, K BRECHT	2016
<b>A critical evaluation of the essentialist debate: do fathers make a unique contribution to child development?</b>	<i>Student Psychology Journal of Ireland</i>
M KING	2015
<b>The locus coeruleus-noradrenergic arousal function modulates perceptual decision-making in humans: evidence from pupillometry</b>	<i>Unpublished Undergraduate Honors Thesis</i>
M KING, R O'CONNELL	2014

<b>Poster Presentations</b>	
<b>Cerebro-cerebellar connectivity is dominated by divergent mapping</b>	<i>Society for Neuroscience Conference</i>
M KING, L SHAHSHAHANI, IVRY, J DIEDRICHSEN	<i>Virtual Conference</i>
2021	

**Predicting brain activation maps for arbitrary tasks with ontology-based encoding models**

J WALTERS, M KING, P BISSETT, IVRY, J DIEDRICHSEN, R POLDRACK  
2021

**Evaluating Brain Parcellations using the Multi-Domain Task Battery**

J DIEDRICHSEN, M KING, C HERNANDEZ-CASTILLO, D ZHI, R IVRY  
2019

**Evaluating different functional parcellations of the basal ganglia**

C HERNANDEZ-CASTILLO, M KING, I HARDING, J DIEDRICHSEN, R IVRY  
2019

**Transcriptomic Gradients of the Human Cerebellum**

M KING, R IVRY, K WEINER  
2019

**A multi-domain task battery reveals the functional topography of the human cerebellum**

M KING, C HERNANDEZ-CASTILLO, R POLDRACK, R IVRY, J DIEDRICHSEN  
2018

**A multi-domain task battery reveals the functional topography of the human cerebellum**

M KING, C HERNANDEZ-CASTILLO, R POLDRACK, R IVRY, J DIEDRICHSEN  
2018

**Navigating the ”Little Brain”: Comprehensive mapping of cognitive function in the human cerebellum**

M KING, R IVRY, J DIEDRICHSEN  
2017

**Navigating the ”Little Brain”: Comprehensive mapping of cognitive function in the human cerebellum**

M KING, R IVRY, J DIEDRICHSEN  
2017

**Mapping the Human Cerebellum**

M KING, R IVRY, J DIEDRICHSEN  
2017

**Transcranial magnetic stimulation measures of intrinsic motor system excitability and task-based inhibition exhibit intra-subject stability across weeks**

I GREENHOUSE, M KING, R IVRY  
2015

**Electroencephalography (EEG) signatures of impairment in cognitive, sensory and motor networks in Amyotrophic Lateral Sclerosis (ALS) disease**

B NASSEROLESLAMI, K MOHR, M KING, O HARDIMAN  
2015

**Invited Talks**

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**Cerebro-cerebellar connectivity across motor and cognitive circuits**

NEUROPHYSIOLOGISCHES SEMINAR  
2021

**Bringing a systems level perspective to neuroimaging analyses**

EDUCATIONAL SYMPOSIUM: NEUROANATOMY FOR NEUROIMAGING  
2021

**Transcriptomic gradients of the human cerebellum**

COGNITIVE NEUROSCIENCE COLLOQUIUM  
2020

**Mapping the Human Cerebellum Using a Multi-Domain Task Battery**

SYMPOSIUM: NEW PERSPECTIVES ON CEREBELLAR FUNCTION: IMPLICATIONS FOR MENTAL HEALTH  
2019

*Organization for Human Brain Mapping Conference*

*Virtual Conference*

*Organization for Human Brain Mapping Conference*

*Rome, Italy*

*Organization for Human Brain Mapping Conference*

*Rome, Italy*

*Cerebellum Gordon Research Conference*

*Les Diablerets, Switzerland*

*The Society for Neuroscience Conference*

*San Diego, California*

*Computational and Cognitive Neuroscience Conference*

*Philadelphia, Pennsylvania*

*Helen Wills Neuroscience Retreat*

*Lake Tahoe, California*

*Organization for Human Brain Mapping Conference*

*Vancouver, British Colombia*

*Cerebellum Gordon Conference*

*Lewiston, Maine*

*Society for Neuroscience Conference*

*Chicago, Illinois*

*Annual ALS Irish Meeting*

*Dublin, Ireland*

*Neurologische Uniklinik Essen*

*Virtual Conference*

*Organization for Human Brain Mapping*

*Virtual Conference [Link]*

*University of California, Berkeley*

*Berkeley, California*

*Society for Neuroscience*

*Chicago, Illinois*

## A multi-domain task battery reveals the functional topography of the human cerebellum

UCB NEUROSCIENCE RETREAT  
2018

Helen Wills Neuroscience Institute  
Richmond, California

## Mapping the Human Cerebellum

SEMINAR: THEORIES AND MODELS OF CEREBELLAR FUNCTION  
2017

Cerebellum Gordon Research  
Conference  
Lewiston, Maine

## Grants

### Transformation of internal representations in multiple task domains.

NIH R35 (funded)

GRADUATE CO-AUTHOR

2020

Collaboration between University of California, Berkeley; Princeton University; Yale University

### Evaluating a Novel Model of Cerebellar Function Using Harmonized Online-Testing of Patients with Cerebellar Degeneration in the Bay Area and Oslo Communities

Sather Grant (unfunded)

GRADUATE CO-AUTHOR

2019

Collaboration between University of California, Berkeley; University of Oslo

### Understanding cortico-cerebellar contributions to cognition

NIH R01 (unfunded)

GRADUATE CO-AUTHOR

2018

Collaboration between University of California, Berkeley; Western University (Canada)

## Teaching

### Mount Tamalpais College

GENERAL PSYCHOLOGY

Lecturer [Link]

10 hrs/week; Sep. - Dec. 2019

- Designed and lectured course on general psychology to incarcerated students. Topics included "the brain and nervous system", "classical conditioning", and "mood disorders". Devised trauma-informed learning objectives, catering to students with diverse educational needs.

### University of California, Berkeley

BIOLOGICAL PSYCHOLOGY, PSYCH 110; COGNITIVE NEUROSCIENCE, PSYCH 127

Instructor [Link]

15 hrs/week; Aug. 2017 - Dec. 2018

- Instructed weekly seminars for 120+ students on topics including "memory and learning" and "ethics of artificial intelligence", under the supervision of UC Berkeley professors. Evaluated and supervised student research and wrote professional references for promising students.

### Western University

BIOLOGY/STATISTICS, STAT 2244; PROBABILITY AND STATISTICS, STAT 2857

Instructor [Link]

15 hrs/week; Jan. 2016 - May. 2017

- Instructed undergraduate students in a statistics and data science laboratory using the programming language "R". Topics included "central limits theorem", "hypothesis testing" and "conditional probability". Wrote and administered exams and evaluated student work.

## Mentorship

### Undergraduate Research Assistants at MIT

SEP. 2022 -

Alyson Brown, Shreya Ravikumar

Psychology; Computer Science

- Shreya Ravikumar is building predictive models of neuropsychiatric disorders.
- Alyson Brown is doing a meta-analysis on neuroimaging and neurodevelopmental disorders.

### Honors Thesis Students at Berkeley

SEP. 2019 - MAY 2021

Shannon Lee; Sienna Bruinsma

Cognitive Science; Psychology

- Shannon Lee's thesis developed eye-tracking and context models to inform social learning.
- Sienna Bruinsma's thesis evaluated the functional role of the cerebellum in linguistic processing using neuropsychology.

### Undergraduate Research Assistants at Berkeley

JAN. 2021 - MAY 2021; SEP. 2019 - MAY 2020

Zanib Naaem; Yiling Kao

Psychology; Computer Science

- Zanib Naaem tested healthy college-aged students on a multi-session eye-tracking and behavioral learning project.
- Yiling Kao developed a verb generation task and used machine learning to study speech envelopes.

### Ph.D. Rotation Students at Berkeley

SEP. - DEC. 2020; JAN. - MAY 2020; SEP. - DEC. 2018

Amanda LeBel; Jacob Zientz;  
Mark Gorenstein

Neuroscience

- Amanda LeBel developed encoding models using speech features to study task-evoked cerebellar activity.
- Jacob Zientz set up fMRI preprocessing scripts (BIDS and fMRIPrep) on multi-session cerebellar data.
- Mark Gorenstein worked on preprocessing pipelines for cerebro-cerebellar connectivity models.

### Post-Baccalaureate Students at Berkeley

SEP. - DEC. 2018

Dylan Benkley

Psychology

- Dylan Benkley conducted a literature review on the role of the cerebellum in social cognition.

## Public Service & Outreach

## COMMITTEES & POLICY

### Science Policy Group - Executive Visit

**Member**

MIT

Sep. 2022 -

- Selected to attend an executive visit trip to Washington, DC to meet with agency leaders from NSF, USDS, EPA, NASA to discuss science policy.
- Led a meeting at the White House office of science and technology policy (OSTP) with Obama's former CTO, Megan Smith.

### Graduate Assembly Students of Psychology

**Member and RSO Signatory**

UNIVERSITY OF CALIFORNIA, BERKELEY

Sep. 2018 - Mar. 2020

- Provided data analytics to improve efficiency of phone banking for Psychology "Big Give". Contacted 10-fold more donors than previous year.
- Liaison officer between Berkeley development office and external donors. Organized faculty fundraisers in Silicon Valley.

### European Federation of Psychology Students' Association

**Editor [Link]**

EUROPEAN UNION

Jan. 2016 - May 2016

- Spearheaded initiative to pre-register scientific results in the Journal of European Psychology Students, a first for student journals worldwide.
- Advised organization leadership on best practices for successful implementation of pre-registration and authored journal article (>3500 views).

### Schulich School of Medicine Graduate Council

**Secretary**

WESTERN UNIVERSITY

Sep. 2015 - Sep. 2016

- Provided budget evaluation of graduate student insurance plan to council. Served as student liaison officer.

### Niteline (Student Helpline)

**Publicity Officer**

TRINITY COLLEGE, DUBLIN

Sep. 2011 - May 2014

- Provided practical program consultation to student helpline [\[link\]](#).

## COMMUNICATION & ADMINISTRATION

### Graduate Assembly Students of Psychology

**Writer/Contributor [Link]**

UNIVERSITY OF CALIFORNIA, BERKELEY

Sep. 2019 - May 2021

- Created, managed, and edited Berkeley Psychology blog to spotlight graduate student research.
- Co-founded and co-operated Twitter account for Berkeley Psychology [\[link\]](#). Increased follower count to >1500 after 2 years.
- Co-Writer of Psychology newsletter [\[link\]](#) (>2000 circulation). Included profiles on graduates to strengthen ties with alumni community.

### Journal of European Psychology Students

**Editor/Contributor [Link]**

EUROPEAN UNION

Jan. 2014 - May 2016

- Managed peer review process for 30 papers including paper submission, reviewer recruitment, copy editing, and publication.
- Contributor to popular psychology and neuroscience blog post, aimed at engaging aspiring psychology students.

## EDUCATION & STEM OUTREACH

### Prison University Project

**Lecturer [Link]**

SAN QUENTIN STATE PRISON

Jan. - May 2019

- Designed and lectured a new curriculum in General Psychology for incarcerated students. I brought human brains into the classroom to teach neuroanatomy, mirroring the UC Berkeley student experience. Provided executive board with formal analysis of organizational operations.

### Bay Area Scientists in Schools (BASIS)

**Team Member [Link]**

UNIVERSITY OF CALIFORNIA, BERKELEY

Jan. 2018 - Jan. 2020

- Deployed neuroscience curriculum, "Know Your Brain", that has been presented to students in >20 Bay Area public schools.

### Inspiring Young Women in STEM Inaugural Conference

**Organizing Member [Link]**

WESTERN UNIVERSITY

May 2016

- Organizing member of first conference to encourage female students in STEM (>150 attendees), recruited keynote speakers, and evaluated research.

### Western Women Neuroscientists in Schools

**Team Leader [Link]**

WESTERN UNIVERSITY

Oct. 2015 - May 2017

- Developed and lectured curriculum to explore neuroscience misinformation ("Myths and the Brain"). Presented to >2000 high-schoolers in Ontario schools.

### Brain Bee

**Volunteer**

WESTERN UNIVERSITY

May 2016 and May 2017

- Member of the organizing committee for the London Brain Bee, a neuroscience event that introduces high school students to neuroanatomy.

### Student-to-Student (S2S)

**Peer Mentor**

TRINITY COLLEGE, DUBLIN

2011 - 2012

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

## Skills & Interests

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<b>Programming Languages</b>	Python, SQL, R, MATLAB, HTML, Bash
<b>Frameworks and Tools</b>	Keras, OpenCV, Git, Vim, Blender, Nipype, Deeplabcut, PsychoPy, Pandas, NumPy, Scikit-learn, Scipy
<b>Conceptual</b>	High performance computing (Savio), Grant Writing and IRB Ethics Protocols, MRI technician certificate
<b>Interpersonal</b>	Project management, Organizational leadership, Resourcefulness, Problem solving, Conflict resolution
<b>Languages</b>	English (Native), Irish (Native), French (Proficient), German (Basic)