

# Amna Hyder

Technical Researcher, Entrepreneur and Educator | [amnahyder.com](http://amnahyder.com)  
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## EDUCATION

**UNIVERSITY OF BRITISH COLUMBIA**  
**MSc IN NEUROSCIENCE**  
 April 2020 (expected)

**CCNSS (2018)**  
 Computational & Cognitive Neuroscience Summer School  
 Full Scholarship sponsored by google DeepMind | [ccns.org/ccn-2018](http://ccns.org/ccn-2018)

**MCMASTER UNIVERSITY**  
**BSc IN INTEGRATED SCIENCE**  
 May 2014 | Hamilton, ON  
 Concentration in Physics and Astronomy  
 Summa cum laude & Valedictorian

## TEACHING

CIRTL Associate  
 Qualified in the Center for the Integration of Research, Teaching and Learning  
 TA for Math | Ontario School Board  
 TA for Psychology | UBC  
 200+ hours tutoring physics & math

## AWARDS

Faculty of Medicine Graduate Award (\$6,500); Cordula & Gunter Paetzold Fellowship 2017 (\$12,000); Cordula & Gunter Paetzold Fellowship 2018 (\$6,000); President's Award 2010 (\$2000); For more see [amnahyder.com](http://amnahyder.com)

## SKILLS

### PROGRAMMING

Over 5000 lines:  
 Matlab • SQL • R •  $\LaTeX$

Over 1000 lines:  
 Python/Jupyter • Fortran • VBA

### TOOLS

BESA (EEG/fMRI) • Photoshop • Illustrator • Lightroom

## SIDE PASSIONS

### PHOTOGRAPHY

Photograph weddings & eshoots

### THE CITIZENS FOUNDATION

Assist. Manager of campaign raising \$ $\frac{3}{4}$  million annually & other duties

### STUDENTS TEACHING STUDENTS

Founder of Teaching Program | Guest Lectures | [stsontario.org](http://stsontario.org)

## WORK EXPERIENCE

### BABYCHILD | FOUNDER AND UX LEAD

ShopBabyChild.com & NaturallyHenna.com | Oct 2018 - current

- \$627,000 revenue in the first year. Profit of \$38,000 within 6 months
- Designed and developed several products. Hired and trained 4 employees
- Responsible for UX research & design, managed shipping & fulfillment
- Take care of all the marketing, strategy and product photography

### ACTION PERCEPTION LAB | RESEARCH ASSISTANT

Sept 2016 – Oct 2018 | UBC

- Managed lab website & finances during graduate studies.
- Responsible for overseeing & analyzing data for multiple projects in the lab

### SCOTIABANK | RISK MODELING ANALYST

Oct 2014 – Sept 2016 | Toronto, Ontario

- Helped develop risk models to predict a customer's risk of default for various products in SQL
- Includes 8 month research break from Sept 2015 to April 2016

## RESEARCH

### UBC BRAIN DYNAMICS LAB | RESEARCHER

Under the supervision of Dr. Tipper and Dr. Galea

Thesis investigates differences in the mirroring and mentalizing systems using several computational methods applied to EEG data. Thesis available at [amnahyder.com/research](http://amnahyder.com/research)

### UBC ACTION PERCEPTION LAB | RESEARCHER

Under the supervision of Dr. Virji-Babul

Investigate alterations in graph-theory metrics of EEG scans in several conditions (concussions, cerebral palsy & "chemo-brain"). Synchronized two EEGs & programmed a game to study between-brain coupling. Helped develop a machine learning to identify concussions using EEG (signal processing & ML)

### UBC PSYCHIATRY | RESEARCH ASSISTANT

Under the supervision of Dr. Birmingham

Investigated how neurofeedback could be used to help with eating disorders (BCI)

### MCMASTER MATH DEPARTMENT | RESEARCH ASSISTANT

Under the supervision of Dr. Min-Oo

Investigated how first few eigenfunctions of combinatorial Laplacian can be used to reduce dimensionality of higher dimensional data sets

## CONFERENCE PRESENTATIONS

Hyder, A., and Virji-Babul, N. (2018, June). "Increased network connectivity across all frequency bands in adolescents with concussion". Organization for Human Brain Mapping, OHBM. Singapore.

Hyder, A., and Virji-Babul, N. (2018, May). "The Effect of Social Context on Functional Connectivity and Between-Brain Coupling". GF Strong Rehab Research Day, University of British Columbia, Vancouver, BC. (60+ presentation attendees)

Hyder, A., and Maung, M. (2014, April). "Using the First Three Eigenfunctions of the Combinatorial Laplacian for Dimensionality Reduction". Presented at the Synthesis Symposium, McMaster University, Hamilton, ON. (30+ presentation attendees)

## PUBLICATIONS

Publications listed in full CV located at [amnahyder.com](http://amnahyder.com)