gregory**kiar**
biomedical engineer

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languages
english native speaker,
basic ASL

programming
Python, R, AWS ♥
MATLAB, C++, x86,
Ruby, LaTeX

soft skills
leadership, design,
problem solving,
teaching

education

2017 – now	**PhD student** in Biomedical Engineering	McGill University, Montreal, QC

Thesis work supervised by Alan Evans on projects pertaining to scalable, reproducible, and accessible platforms and tools for enabling computational neuroscience.

2014 – 2016	**M.S.E** in Biomedical Engineering	Johns Hopkins University, Baltimore, MD

Thesis work was supervised by Joshua T. Vogelstein on a project entitled: GREMLIN: Graph Estimation from MR images Leading to Inference in Neuroscience.

2010 – 2014	**B.Eng** in Biomedical and Electrical Engineering	Carleton University, Ottawa, ON

Capstone work was supervised by Leonard MacEachern on a project entitled: Electrical muscle stimulation with concurrent EMG feedback of the upper arm for applications in stroke rehabilitation.

2016	**Exploring the Human Connectome**	The Human Connectome Project, Boston, MA

Development and deployment of connectome estimation pipelines.

2015	**Presenting Data and Information**	Edward Tufte, Baltimore, MD

Cultivate skills in effective communication with scientific figures.

experience

Academic Experience

Current Positions

05/17 – now	**McGill Centre for Integrative Neuroscience (MCIN)**	Montreal, QC

Software Developer

Integration of distributed software software services with the AWS cloud. Development, training, support, and facillitation of the use of tools and services within international collaborations.

Current Activities

05/17 – now	**Organization for Human Brian Mapping (OHBM)**	Minneapolis, MN

Open Science SIG - Committee Member

Contributed to the organization and planning of the BrainHack 101 training course and unconference activities related to the open science special interest group throughout the annual OHBM meeting.

Previous Positions

09/14 – 05/17	**Center for Imaging Science, Johns Hopkins University**	Baltimore, MD

Research Engineer

Development and maintenance of an open-source pipeline for multi-scale braingraph generation from human MR images. Implementation and development statistical algorithms for quality control of data derivatives. Publicly released data products to lower the barrier to entry for neuroscience research. Chiefly responsible for grant reporting and public presence at conferences and workshops.

06/13 – 09/13 **Dept. of Systems and Computer Engineering, Carleton University**   Ottawa, ON
Research Assistant with Dr. Rafik Goubran
Developed wireless medical data publish-subscribe system for viewing patient vital signs remotely.

06/12 – 09/12 **Dept. of Systems and Computer Engineering, Carleton University**   Ottawa, ON
Research Assistant with Dr. Andy Adler
Utilized neural networks for inverse modeling of real and simulated biological systems.

06/11 – 09/11 **Dept. of Biology, Carleton University**   Ottawa, ON
Research Assistant with Dr. Jeffrey Dawson
Developed robotics platform for studying insect locomotion patterns and behaviour.

01/09 – 09/09 **CRC, Ottawa Hospital Research Institute**   Ottawa, ON
Research Assistant with Dr. Jim Dimitroulakos
Tested combination therapies of Lovastatin and Cisplatin drugs on colon and breast cancer strains.

Teaching Experience

09/14 – 05/17 **Dept. of Biomedical Engineering, Johns Hopkins University**   Baltimore, MD
Teaching Assistant
Responsible for instruction, evaluation, and content design for: Freshman Modeling and Design for BME (2014, 2015), Systems and Controls (2015), Statistical Connectomics (2015), The Art of Data Science (2016), NeuroData Design (2016). Spent more than 500 hours (cumulative) working with students.

01/{15, 16, 17} **Dept. of Computer Science, Johns Hopkins University**   Baltimore, MD
Instructor
Responsible for instruction, evaluation, and content design for intensive 3-week project-based course on an introduction to connectomics research across multiple scales and experimental modalities.

09/12 – 05/14 **Student Academic Success Center, Carleton University**   Ottawa, ON
Facilitator for Peer-Assisted Study Sessions
Instructed and demonstrated mastery of principles in electromagnetism and power engineering. Spent more than 300 hours working with students.

08/13 – 05/14 **Student Academic Success Center, Carleton University**   Ottawa, ON
Facilitator Team Leader
Provided training, mentoring, and coaching to student instructors in a variety of disciplines. Spent more than 100 hours training and working with facilitators.

01/13 – 06/14 **Dept. of Systems and Computer Engineering, Carleton University**   Ottawa, ON
Teaching Assistant
Instructed introductory level C++ programming. Led lab sessions and instructional workshops. Spent more than 300 hours working with students.

memberships & extracurriculars

2017 – now **OHBM Open Science Special Interest Group (SIG)**   Minneapolis, MN
Committee Member

2017 – now **OHBM Student and Postdoc SIG**   Minneapolis, MN
Student Member

2014 – now **NeuroData**   Baltimore, MD
Chief Neurocartographer and Core Team Member

2015 – 2016	**College Prep Program**	Baltimore, MD
	College Mentor, SAT Coach, & Essay Reviewer	
2014 – 2016	**Thread**	Baltimore, MD
	Grandparent (i.e. supervisor) & Family Member (i.e. volunteer)	
2013 – 2014	**Carleton University Biomedical Engineering Society**	Ottawa, ON
	President	
2013 – 2014	**PASS Talks**	Ottawa, ON
	Co-Founder and Vice President	
12/12, 12/13	**Operation Red Nose Ottawa**	Ottawa, ON
	Navigator and Driver	
2010 – 2011	**Carleton University Student Emergency Response Team**	Ottawa, ON
	Emergency First Responder	

awards

2017	**OHBM BrainHack Travel Award**	OHBM, Minneapolis, MN
2014 – 2016	**Full-tuition Master's Degree Fellowship**	Johns Hopkins University, Baltimore, MD
2014	**Graduated with Distinction**	Carleton University, Ottawa, ON
2014	**Greatest Social Impact Paper**	Professional Engineering Ontario (PEO), Ottawa, ON
2014	**SEED Fund**	Carleton University Engineering Alumni, Ottawa, ON
2014	**IEEE Papers Showcase Local Winner**	IEEE Ottawa-Carleton Chapter, Ottawa, ON
2014	**Carleton Electronics Project Competition Champion**	Carleton University, Ottawa, ON
2013	**Engineering '65 and '66 Scholarship**	Carleton University, Ottawa, ON
2012 – 2014	**Dean's Honour List**	Carleton University, Ottawa, ON
2012	**Clarence C. Gibson Scholarship**	Carleton University, Ottawa, ON

interests

professional: pipeline engineering, cloud computing, big data, data analysis, software design, neuroscience, machine learning, statistics, accessibility and reproducibility. **personal:** guitar, hockey, soccer, cooking, design, animals, hiking, paddling.

publications