

curriculum vitae of
Haider Riaz Khan

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EDUCATION

2024 – Pres	M.S. in Mathematics Courses: Modern Algebra and Computational Mathematics	CITY COLLEGE OF NEW YORK
2017 – 2018	M.A. in Philosophy Thesis: The Phenomenological Origins of Property (Advised by John Turri) Seminars: Self-Knowledge, Human & Computer Intelligence, and Foundations of Quantum Theory	UNIVERSITY OF WATERLOO
2010 – 2015	B.Sc. in Physics and Computer Science Special Research Project: The Building of a Cellular Detector (Advised by Paul François)	MCGILL UNIVERSITY

PUBLICATIONS

CONFERENCE AND JOURNAL ARTICLES

1. **Khan, Haider Riaz**, & John Turri. “Phenomenological Origins of Psychological Ownership.” *Review of General Psychology* 26, no. 4 (December 2022): 446–63.
2. Li, Nan, Yu Lei, **Haider R. Khan**, Jingshu Liu, and Yun Guo. “Applying Combinatorial Test Data Generation to Big Data Applications.” In *Proceedings of the 31st IEEE/ACM International Conference on Automated Software Engineering (ASE ’16)*, 637–47. New York, NY: Association for Computing Machinery, August 2016.

ESSAYS

1. “The Forever War.” *Commune*, Issue 5, Winter 2020.

AWARDS & HONORS

2018	Paul Seligman Memorial Scholarship	UNIVERSITY OF WATERLOO, \$1200
2015	Dean’s Multidisciplinary Undergraduate Research List	MCGILL
2014	NSERC-CREATE Neuroengineering Award	MCGILL, \$5,625
2010	Alexander Rutherford Scholarship	WESTERN CANADA HIGH SCHOOL, \$2,500

WORK

2021 – 2022	Senior Software Engineer Implemented Avenue 8’s observability infrastructure. Wrote automation, monitoring, and alerting scripts. Automated the management of AWS provided resources using Terraform. Improved network security.	AVENUE 8 (NYC, USA)
2019 – 2021	Software Engineer Built Lifion’s graph database framework using a microservices architecture, Node.js, Gremlin, and distributed message queuing services. Wrote optimized Gremlin queries and SQL subroutines.	LIFION BY ADP (NYC, USA)
2018	Translator Transalted English stimuli into Pashto and Urdu for the purposes of a cross-cultural study of the “ought implies can” principle. Provided feedback on research paper drafts to Prof. Turri.	PHILOSOPHICAL SCIENCE LAB, UNIVERSITY OF WATERLOO
2016 – 2017	Software Engineer Contributed to the development of a Java based combinatorial test data generator called BIT-TAG.	MEDIDATA SOLUTIONS (NYC, USA)
2014 – 2015	NSERC Neuroengineering Fellow Wrote CANDLE-J; an open-source 3-D image denoising software designed as an ImageJ plugin. CANDLE-J is adept at processing deep in vivo 3D multiphoton microscopy images where the signal to noise ratio (SNR) is low. It is written in Python, Java, and multithreaded C.	RUTHAZER LAB, MONTREAL NEUROLOGICAL INSTITUTE

2012 - 2014

Computational Scientist

COOK LAB, DEPARTMENT OF PHYSIOLOGY, MCGILL

Developed MATLAB routines to measure the cross-correlation of microsaccades and microstimulations (in area MT of the visual cortex). Created a library of MATLAB functions to compute joint metrics of neural activity. The joint metrics are computed for both single unit and multi unit neuronal spikes.

TALKS & PRESENTATIONS

2016

comBinatorial blg daTa Test dAta Generator (BIT-TAG)

ASE'16, SINGAPORE

2014

Neuroscience From Below

STUDENT SUMMER COLLOQUIUM, MCGILL

TEACHING EXPERIENCE

Winter 2018

Teaching Assistant

UNIVERSITY OF WATERLOO

Biomedical Ethics (Prof. Andrew Stumpf)

Fall 2017

Teaching Assistant

UNIVERSITY OF WATERLOO

Professional and Business Ethics (Dr. Jim Jordan)

Fall 2011

SUS Peer Tutor

MCGILL

Met with students routinely to go over physics and chemistry concepts; held exam review sessions.

TECHNICAL SKILLS

Programming Languages: TypeScript, Clojure, Java, Python, C, Bash, MATLAB, SQL, Gremlin

Data Querying & Management: MySQL, MongoDB, GraphQL, Elasticsearch, Redis

Development & Automation: Git, Docker, GitHub Actions, Terraform, GCC, javac

LANGUAGES

English, Urdu, Pashto

ACTIVITIES & INTERESTS

2022 - Pres

Athlete

USA BOXING (NYC, USA)

Training out of Brotherhood Boxing Club and SouthBox by Eric Kelly.

2013 - 2014

Radio Host

CKUT-FM (MONTREAL, QC)

Hosted Friday's "Off the Hour." The show covered a wide range of topics including environmental activism, indigenous affairs, and provincial legislation.