

# Mason Kadem

mason.kadem@gmail.com | links | Dundas, ON, Canada

## EDUCATION

### **MCMASTER UNIVERSITY**

#### **PhD IN COMPUTER SCIENCE**

Faculty of Engineering

Keywords: AI, HCI

### **MCMASTER UNIVERSITY**

#### **MASc IN BIOMEDICAL ENGINEERING**

Faculty of Engineering

Keywords: Interpretable ML

### **WESTERN UNIVERSITY**

#### **MSc IN NEUROSCIENCE**

Schulich Medicine and Dentistry

Keywords: cognition, language, signal processing

### **WESTERN UNIVERSITY**

#### **HBSc IN PSYCHOLOGY**

Brain and Mind Institute

Keywords: HCI, cognitive software, UI/UX

## CERTIFICATES

### **COMPUTE ONTARIO**

High-Performance Computing

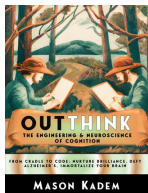
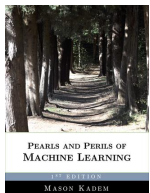
### **WESTERN UNIVERSITY**

University Teaching

### **UNIVERSITY OF OXFORD**

Machine Learning Theory

## BOOKS



## PUBLICATIONS

ResearchGate | Google Scholar

### **Selected Conferences**

Association for the Advancement of Artificial Intelligence, Singapore, 2023

Imaging Network Ontario, Canada, 2023

### **Teaching**

TA: Engineering design projects, modelling of bio signals, commercialization/IP law, research methods/statistics

College Prof: programming, digital health+forensics, AI/ML, security, leadership

### **Invited speaker**

AI Health Rounds, eHealth seminars, physiology, biofluid mechanics systems, supervised ML, AI (internationalx2), canadian space agency x2

## EXPERIENCE

### **VASCULARAI.CA | HEAD OF AI AND DATA SCIENCE**

July 2019 – Present | Hamilton, ON

Keywords: ML/statistics prediction models, brain microvasculature, data science

### **RESEARCHONLINE.CA | CHIEF TECHNOLOGY OFFICER**

May 2022 – Present | Dundas, ON

Keywords: large-scale physiological testing online, biophotonics, bioinstrumentation, AI, R&D, ethics, edge computing, security/compliance, funding, data engineering

### **MOHAWK COLLEGE | PROFESSOR OF COMPUTER SCIENCE**

January 2023 – Present

Keywords: computer science and digital health courses, programming, cyber+information security infra, digital forensics, change management

### **FANSHAW COLLEGE | PROFESSOR OF MACHINE LEARNING**

July 2022 – Dec 2023

Keywords: Developed AI/ML courses, taught cyber ML course

### **VECTOR INSTITUTE | CONSULTANT: DEVELOPMENT + COACH**

March 2023 – April 2023 | Toronto, ON

Keywords: ML course development and teaching in Caregivers and Machine Learning program

### **MCMASTER UNIVERSITY | VARIOUS RESEARCH SCIENTIST ROLES**

Sep 2019 – November 2022 | Hamilton, ON

Keywords: brain tissue analysis, neuroplasticity, multiscale modelling, multi-modality imaging, medical image analysis, vascular interventions, software development, application lifecycle, design thinking, rapid prototyping, managing software teams, medicine, genetics, biomarkers

## SELECTED SERVICE ACTIVITIES

Canadian Space Agency | **INVITED NEUROSCIENCE CONSULTANT**

JACC, MEDTEQ+ | **AI REVIEWER**

HSGSA, Jack Chambers PS | **PRESIDENT**

Thames Valley District School Board | **JUDGE & SPEAKER**

The Clinic | **HEALTH STARTUP MENTOR**

## SELECTED AWARDS

2023 MITACS Accelerate Entrepreneur (\$90,000)

2023 CIHR CGS-D (Federal Competition)

2023 Canada's NEXT AI interviewee x2

2022 NSERC Vanier Nominee (Federal Competition)

2021 Queen Elizabeth II Scholarship in Science and Technology (\$10,000)

2021 E.M. Dalley Fellowship (\$5000)

2016 W.O.S.S.A Gold Medal (Captain)/ Varsity Wrestler

## SKILLS

shell • python • r • matlab •  $\LaTeX$  • ML/AI (pytorch, scikitlearn, pandas, numpy) • full stack (django/fastapi, html/css/js/react, postgres) • research methods/statistics/probability • devops (git, docker, CI/CD) • linux/win • signal/image processing • medical data acquisition systems • UX-driven experimental design • communication • management • cloud computing