DEREK HON | Curriculum Vitae

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○ GitHub • in LinkedIn • ⓑ Blog

SUMMARY

Masters of Science graduate in Computational Intelligence. Worked with Genetic Programming and aspects of Computer Vision. Open to any opportunities with a preference to AI.

EDUCATION

BROCK UNIVERSITY
MSc Compuational Intelligence
CGPA: 92%

1/2021 - 2/2023
St. Catharines, ON

BROCK UNIVERSITY
BSc Computer Science Co-op
CGPA: 81%, First Class Standing

09/2016 - 12/2020
St. Catharines, ON

EXPERIENCE

GRADUATE TEACHING ASSISTANT
Brock University
Lab Demonstration: Demonstrate exercises to be completed and provide assistance.
Marker/Grader: Grade assignments, exams, and proctor exams.
Course coordinator: Communication liaison for the professor.
Help desk hours providing aid for all computer science courses.

01/2021 - 08/2022
St. Catharines, ON

MASTER THESIS STUDENT
Brock University
Illumination techniques applied onto Genetic Programming to explore the novelty of diversity. Thesis Link

01/2021 - 02/2023
St. Catharines, ON

FULL STACK DEVELOPER INTERN
Tejo (Mirrabel Inc.)
Revamped web app's back-end and front-end along with the sign up process and up-selling features.Fixing bugs/QOL through testing and from customer feedback. Improve work efficiency through SCSS and CSS scripts through SFTP to the server along with bash scripts as the access point.

01/2019 - 08/19
Toronto, ON

FREELANCE DEVELOPER
DroneHub
Fixed React object references and JavaScript errors on the website.

03/2019 - 03/19
Remote

SOFTWARE DEVELOPER INTERN
HubDoc
Developed scripts to parse numerous financial documents. Add graph generation for progress updates to the intranet with filters.

01/2018 - 04/18
Toronto, ON

SKILLS

PROGRAMMING LANGUAGE	**Experienced:** Java | Python | JavaScript	**Familiar:** C++ | PHP | Latex
FRAMEWORKS & TOOLS	ECJ(23, 27) | OpenCVl | Git | R Studio | Drupal	
LIBRARIES	matplotlib | Tesseract | SLMLab	

PROJECTS

ECJ 27 MAP-ELITES (PROTOTYPE)   2021
Java
Implementing MAP-Elites (https://arxiv.org/abs/1504.04909) into Sean Luke's ECJ ver. 27 (https://cs.gmu.edu/ eclab/projects/ecj/). Once fully documented, and once the code has been brought up to personal satisfactory quality, it will be submitted in hopes of becoming an official package.

RECURSIVE NEURAL NETWORK   2021
Java
A recursive neural network utilizing Super Smash Bros. Melee frame data as input to try and classify the characters based off of the moves utilized within the game which is obtained through the frame data.

RECEIPT EXPENSE CALCULATOR   2018
Android Studio
Free Neural Network OCR to parse receipt data to track expenses with user correction option afterwards. The images will be stored as a bitmap to view at any point in time, and expenses from month-day and year-day will be calculated and shown.

ARTICLES UNDER REVIEW

IEEE CONGRESS ON EVOLUTIONARY COMPUTATION (CEC)   2023

Submitted a paper to the IEEE 2023 Congress on Evolutionary Computation regarding Distributed MAP-Elites and its Application in Evolutionary Design which is currently under review.

RESEARCH GROUPS

BIO-INSPIRED COMPUTATIONAL INTELLIGENCE GROUP (BICIG)   2021 - Present

BICIG is a research group residing in the Department of Computer Science at Brock University. Group Link

HONORS & AWARDS

BRIAN HELSTROM COMPUTER SCIENCE SCHOLARSHIP   2021
Brock University   St. Catharines, ON
Given to a full time domestic student who demonstrates academic excellence.

DEAN OF GRADUATE STUDIES ENTRANCE SCHOLARSHIP   2021
Brock University   St. Catharines, ON
Given to students entering the program who demonstrate academic excellence.

DEAN'S LIST   2017, 2019 & 2020
Brock University   St. Catharines, ON
Academic distinction based on the term prior to the end of the year.