

MARLEY XIONG

NEUROTECHNOLOGY ENTHUSIAST

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EDUCATION

BACHELOR OF SCIENCE: McGill University, 2016 – 2019 (expected)

Biology and Computer Science – JW McConnell Scholarship – GPA: 3.97

Relevant courses: Algorithms & Data Structures, Linear Algebra, Software Systems

WORK

MACHINE LEARNING INTERN: Perigen (Montreal, QC) 2017

EXPERIENCE

Built and tested neural networks in Tensorflow for production settings and developed tools to visualize heart rate patterns

Created software to connect fetal heart rate classifier to real-time data pipeline

RESEARCH INTERN: St. Joseph's Healthcare (Hamilton, ON) 2016

Managed clinical database and performed data analysis using SPSS

Collected, cleaned, and computerized surveys on REDCap software

Investigated factors affecting early-onset mental illness

STUDENT RESEARCHER: University of Toronto (Mississauga, ON), 2014-2016

Designed and synthesized biodegradable nanoparticles for cancer drug delivery

Wrote research proposal approved for funding by Sanofi-Aventis

RESEARCH ASSISTANT: The Hospital for Sick Children (Toronto, ON) 2014

Prepared brain slices and stained tissue for study on memory consolidation

Performed data acquisition of confocal cell images using ImageJ

PROJECTS

BRAINLOVERS: Startupfest, 2017

Created application to stream EEG data from Muse headset and determine whether the wearer is in love with an image (or someone) they see

Created a timed experiment using PsychoPy and analyzed data in Python

Used data to test and implement algorithm measuring interest

EEG BIOMETRICS: NeuroTechX, 2017

Worked on open-source project for personal identification using resting-state EEG

Processed data using PCA analysis and artifact removal with MNE library

KLIPFOLIO: DeCode Ottawa, 2017

One of 21 applicants selected to work with engineers from startups on real-world problems (out of over 500 applicants)

Created data schema and chart rendering for mobile app that creates custom data visualizations

QUOTER: McHacks, 2017

Developed a mobile app for saving and sharing quotes of your friends

Designed front end using XML & Java, integrated with server and database

SONGLORE: ConUHacks II, 2017

Worked with team of 3 on an app that allows users to find and geocache songs
Used Google Maps and Spotify API, created user interface

AWARDS**BIOLOGY**

Silver medalist at the International Biology Olympiad (2015)
Second place in Canada on the National Biology Competition (2015)
Recipient of the Hamilton Health Science Research Bursary (2016)

COMPUTER SCIENCE AND LINGUISTICS

Sixth place in Canada on the North American Computational Linguistics Olympiad
Second place female team in ECOO Programming Contest

PUBLICATIONS

Xiong M, Zeeshan H, Prosser S. Biodegradable nanoparticles for cancer drug delivery. Poster session presented at: International Conference & Exhibition on Advanced & Nano Materials; 2016 Aug 1-3; Montreal, QC

SKILLS

**JAVA | C/C++ | PYTHON | BASH | XML | HTML/CSS | ANDROID
SDK | SPSS | ADOBE ILLUSTRATOR | PHOTOSHOP**