MARLEY XIONG

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EDUCATION

MCGILL UNIVERSITY *B.Sc. Neuroscience & Computer Science*   2016-2019

Cumulative GPA: 3.97

Applied Machine Learning, Algorithms and Data Structures, Discrete Structures

WORK EXPERIENCE

CENTRE FOR INTEGRATIVE NEUROSCIENCE *Software Developer*   Oct 2017 – Present

- Developed features for neuroimaging web application in agile environment using Github

- Created module to replace SQL metafiles and insert instruments into test battery. Developed frontend in React, AJAX and JSON, and database communication in PHP and MySQL under Unix environment

PERIGEN *Machine Learning Intern*   May – Aug 2017

- Prepared and tested LSTM neural network for real-time classification of fetal heart rate in hospitals

- Evaluated ways to integrate Tensorflow with existing system, designed and saw through full implementation of standalone module for classification, achieving a 99% match with research model results

- Automated transfer of Python research models to C++ production environment, saving over an hour each time the model is updated

UNIVERSITY OF TORONTO *Student Researcher*   2014 – 2016

- Designed and synthesized biodegradable nanoparticles for cancer drug delivery

- Wrote research proposal approved for funding by Sanofi-Aventis

PROJECTS

PSYCHIC PUCK *Winner, IEEE SMC Brain Hackathon*   Oct 2017

- Controlled the motion of a robotic puck using real-time alpha EEG intensity as measured by the Muse headband. Analyzed data in Python and communicated through Bluetooth and OSC

BRAINLOVERS *Semifinalist, Montreal Startupfest*   July 2017

- Created a timed experiment using PsychoPy, gathered Muse EEG data, and visualized results using Python

- Applied frontal asymmetry paradigm to EEG data to determine whether someone is in love with an image or a person they see

QUOTER *McHacks*   Jan 2017

- Developed an Android app for saving and sharing quotes of your friends

- Designed front end with XML & Java, integrated with Firebase NoSQL database

AWARDS

IEEE SMC Brain Hackathon Student Competition Winner ($500 sponsorship)

Brainhack Washington 2017 Travel Grant Recipient

Hamilton Health Science Bursary ($1500 grant)

Silver medalist at the International Biology Olympiad (2015) representing Canada

LEADERSHIP

Vice President of Technology of McGill NeuroTechX student chapter

Computer Science Undergrad TA

House Representative in Hall Council

Vice President of Media of Fantasia

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, MATLAB, SQL, PHP, Bash, XML, HTML/CSS, Android SDK, SPSS, Unix