

SAYAN FARAZ

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SKILLS

- Proficiency in Java, Python, HTML/CSS, SQL; working proficiency in C#, C
 - Understanding of fundamental data structures, algorithm efficiency analysis, search/sort algorithms
 - Computer physics simulations, data analysis in Python (SciPy, NumPy, Matplotlib)
 - Currently learning about brain computer interface signal processing and applications (Python, MATLAB), neural networks + machine learning
 - Tools: IntelliJ, Eclipse, Visual Studio, PyCharm, Git/GitHub, unit testing frameworks, command line, Linux
- Experiment design, scientific method, statistical analysis, literature review, Agile development, test-driven development, design patterns, memory model

PROJECTS

VITREOUS —PYTHON, SCIPY, NUMPY, OPENBCI FRAMEWORK

- Eye gestures system for VR/AR devices: hardware to collect EOG + software to analyse EOG and translate to gestures

FLAPPY BIRD —JAVA/SWING

- Flappy Bird + cleaner graphics!

WALL-EEG (IN PROGRESS)—PYTHON, SCIPY, NUMPY, OPENBCI FRAMEWORK

- Mind-controlled bot: drone receiving commands calculated from supervised machine learning on motor thoughts (EEG)

WORK EXPERIENCE

PROFESSIONAL EXPERIENCE

FELLOW: UNIVERSITY OF TORONTO ENTREPRENEURSHIP HATCHERY

MAY—SEPT 2016

- Developing a medical wearables startup under the Hatchery framework (Python/Kivy (+ SciPy, NumPy, etc), OpenBCI)
 - Skills: medical hardware/software integration, (currently learning) signal processing, business development

INTERN: FOCUSED ULTRASOUND LAB AT SUNNYBROOK RESEARCH INSTITUTE

JUL—AUG 2014

- Designed, co-wrote report describing Physical Sciences Platform (PSP) of the Sunnybrook Research Institute
 - Topics: research, available resources, commercialization track record, initiatives to promote innovation

JUL—AUG 2013

- Designed, implemented modern layout for website of FUS Instruments, an ultrasound research technology company
- Created 3-D models of various parts of the blood brain barrier, such as the endothelial cells in the barrier

LEADERSHIP INITIATIVES

FOUNDER, PRESIDENT—NEUROTECHUOFT

OCT 2015—CURRENT

- Group aiming to help students at U of T drive neurotechnology innovation
 - create and execute neurotechnology research and product development projects
- My duties:
 - Brainstorming and execution of mandate to achieve long term goals, along with executive council.
 - Leading or advising research and development projects (mind-controlled bot, EOG-based eye gestures system)

EDUCATION

UNIVERSITY OF TORONTO—PHYSICS, COMPUTER SCIENCE ; GPA: 2.95

2014—2019 (EXPECTED)

- Related Courses :

Current:

- CSC209: Software Tools+Systems Programming
- CSC263: Data Structures & Analysis
- CSC321: Introduction to Neural Networks and-Machine Learning

Previous:

- CSC207: Software Design
- CSC258: Computer Organization
- CSC343: Introduction to Databases
- CSC236: Introduction to Theory of Computation
- STA247: Probability with Computer Applications

- Awarded the University of Toronto President's Entrance Scholarship