# SAYAN FARAZ

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### **EDUCATION**

### UNIVERSITY OF TORONTO—PHYSICS, COMPUTER SCIENCE

2014—2019 (EXPECTED)

- Related Courses:
  - o Software Tools+Systems Programming
  - o Data Structures & Analysis
  - o Software Design
  - o Computer Organization

- Introduction to Databases
- o Introduction to Theory of Computation
- o Probability w. Computer Applications
- Practical Physics (Laboratory)
- Awarded the University of Toronto President's Entrance Scholarship

#### **SKILLS**

- Proficiency in Java, Python, HTML/CSS, SQL; working profiency in C#, C
  - o Fundamental data structures, algorithm efficiency analysis, search/sort algorithms
  - o Data analysis in Python (SciPy, NumPy)
  - o Brain computer interface signal processing and applications, neural networks (TensorFlow, PyTorch)
  - o Tools: Git/GitHub, unit testing frameworks, command line, Linux
- Experiment design, statistical analysis, literature review, Agile development, test-driven development, design patterns, memory management

#### PROFESSIONAL EXPERIENCE

## JAVA DEVELOPER: INTACT FINANCIAL CORPORATION

MAY 2017—CURRENT

- Development of mainframe-to-cloud insurance policy data translation library
  - o Designed and developed architecture for rules-based engine for faster user story completion time
  - o Spearheaded 9-person team's transition and training on Git
  - o Skills: Java, XML, Agile development, test-driven development, design patterns

### 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, signal processing, business development

# FOUNDER—NEUROTECHUOFT

OCT 2015—CURRENT

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

### **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

### MINDTYPE (IN PROGRESS)—PYTHON, PYQT, SCIPY, NUMPY, OPENBCI FRAMEWORK

Mind-controlled keyboard using imaginary hand gestures: multi-threaded async architecture, EEG signal processing + analysis, GUI