

# sayan faraz

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## EDUCATION

### COMPUTER SCIENCE, PHYSICS

UNIVERSITY OF TORONTO

2014—2019 (EXPECTED)

CSC209: Software Tools+Systems Programming (C)  
CSC373, 263: Data Structures & Analysis, Algorithms  
CSC207: Software Design  
CSC258: Computer Organization (Verilog)  
CSC343: Introduction to Databases  
STA247: Probability w. Computer Applications  
PHY224: Practical Physics (Laboratory)

## SKILLS

### JAVA, PYTHON, C, HTML, CSS, JS, SQL, ANGULAR

- Data structures, algorithms and analysis
- Brain computer interface signal processing and applications (Python, SciPy, NumPy)
- Neural networks (TensorFlow, PyTorch)
- Tools: Git/GitHub, unit testing frameworks, cmd, Linux
- Experiment design, statistical analysis, literature review, Agile development, test-driven development, design patterns, memory management

## PROFESSIONAL EXPERIENCE

### MINDFUL TECH RESIDENT: INTERAXON

SEPT 2018—CURRENT

Python, Processing, NumPy, Obj. C, Nanoleaf

- Designing and implementing experimental real-time sound and light-based meditation experiences based on analysis of EEG data from the Muse headband

### JAVA DEVELOPER: INTACT FINANCIAL CORPORATION

MAY 2017—AUG 2018

Java, XML, Agile, test-driven development, design patterns, architecture design

- Development of mainframe-to-cloud insurance policy data translation library
  - Designed and developed architecture for rules-based engine for faster user story completion time
  - Spearheaded 9-person team's transition and training on Git

### FELLOW: UNIVERSITY OF TORONTO ENTREPRENEURSHIP HATCHERY

MAY—SEPT 2016

Business development, partnership development, presentations to investors, biosignals research / development

- Developing a medical wearables startup under the UofT Hatchery framework
  - Business model canvas, B2B partnership nurturing, pitched to potential investors, wearable biosignals collection R/D

### FOUNDER: NEUROTECHUOFT

OCT 2015—CURRENT

BCI, leadership, project management, strategic planning, fostering research and innovation

- 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 drive undergraduate neurotech innovation, along with executive council.
  - Leading or advising research and development projects (mind-controlled keyboard, mind-controlled drone, etc)

## PROJECTS

### MINDTYPE (mind-controlled keyboard)

IN PROGRESS

Python, ML, BCI, microservice architecture, signal processing, React, Electron, Google Cloud, open-source

- Mind-controlled keyboard using a) P300 ERP classification, and b) imaginary hand gesture prediction
  - My role: project lead, designed open-source microservices architecture for project, applying deep learning to imaginary hand gesture prediction