Neda **Shokraneh**

Computer Science PhD Student

Simon Fraser University, 8888 University Drive, Burnaby BC, Canada, V5A 1S6

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Education

SFU(Simon Fraser University)

Canada, BC, Burnaby

P.H.D. in Computer Science — *Jan. 2021 - present*

- GPA: 4 out of 4.33
- Selected Courses:
  Graph Representation Learning.

SFU(Simon Fraser University)

Canada, BC, Burnaby

M.S. in Computer Science (Joint with Bioinformatics program) — *Sep. 2018 - Dec. 2020*

- GPA: 3.96 out of 4.33
- Selected Courses:
  Statistical Machine Learning, Machine Learning, Approx and Random Algorithms, Bioinformatics Algorithms, Graph Neural Network, Problem based learning Bioinformatics, Special Topics in Bioinformatics.

SUT(Sharif University of Technology)

Iran, Tehran

B.S. in Computer Hardware Engineering (Minor In Mathematical Sciences) — *Sep. 2013 - Feb. 2018*

- GPA: 16.68 out of 20
- Selected Courses:
  Engineering Probability and Statistics , Statistics and Applications, Topics in Statistics (Graduate), Topics in Combinatorics (Graduate), Data Analysis, Algebra1, Artificial Intelligence, Numerical Computation, Signals Processing.

Research Interests

- Statistical Inference
- Computational Biology
- Graph Representation Learning
- Dimensionality Reduction

Experience

Comp bio Lab, Simon Fraser University

Burnaby, BC, Canada

Researcher under supervision of Prof. Maxwell Libbrecht — *Sep. 2018 - Present*

NLP group, Borealis AI

Toronto, ON, Canada

Machine Learning Researcher — *Jan. 2021 - Apr. 2021*

- We were working on comparing sequence generation and sequence editing models for the text editing task, sentence simplification, where the output sequence is highly overlapped with the input sequence.

Lupien Lab, Princess Margaret Cancer Centre/University Health Network

Toronto, ON, Canada

Research Intern in Mathieu Lupien Research Laboratory — *May. 2019 - July. 2019*

- We were working on enhancing resolution of prostate cancer sample Hi-C data from experiments with shallow sequencing using deep learning methods.

Digital Media Lab, Sharif University of Technology

Tehran, Iran

Researcher (B.S Thesis) under supervision of Prof. Hamid R Rabiee — *Dec. 2016 - Feb. 2018*

- We did some downstream analysis for Hi-C data such as identifying TADs and promoter-enhancer interactions. I did research on different existing methods, and applied them on our data to find significant interactions.

Teaching Assistant

Tehran, Iran

Sharif University of Technology — *Fall 2014 - Fall 2017*

C Language Programming (Fall 2014), Computer Architecture (Fall 2015, Spring 2017), Probability and Statistics (Fall 2016, Spring 2018), Computer Networks (Fall 2017), Computer Structure and Languages (Fall 2017)

Paper referee *Burnaby, BC, Canada*

Comp bio Lab, Simon Fraser University *2019 - Present*

- Reviewed paper for NeurIPS (2020,2021), ISMB (2021,2022), MLCB (2019)

Publications and Preprints

- Integrative chromatin domain annotation through graph embedding of Hi-C data [bioRxiv]

  Neda Shokraneh, Mariam Arab and Maxwell W Libbrecht

- Continuous chromatin state feature annotation of the human epigenome [Bioinformatics, 2022]

  Habib Daneshpajouh, Bowen Chen, Neda Shokraneh, Shohre Masoumi, Kay C Wiese and Maxwell W Libbrecht

Skills

Programming Languages Python, R, C++

Scripting Languages Bash

Languages Persian (Native), English (Fluent)

Honors & Awards

2021 , Special Grad Entrance School from Simon Fraser University *Vancouver, BC, Canada*

2018 , NSERC-CREATE scholarship award (Fully funded scholarship for the first year of master's joint program in Bioinformatics) *Vancouver, BC, Canada*