

NAFIS ABRAR



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WORK

Jan 2020-Present
Django,HTML/CSS,
Python ML libraries

RESEARCH ASSISTANT

♥ Vancouver

at [Laboratory for Computational Intelligence \(LCI\)](#) (UBC)

- Currently working on a research paper on automatic essay grading using discourse aware neural net for MTA - a software system for partially automated peer grading. MTA is currently being used to teach courses in UBC and Princeton University.
- Developed automatic tracking features for MTA which resulted in more data collection from the courses for further research.

Jan 2020-Present
Node.js, Firebase,
React, HTML/
CSS,Python ML
libraries

CO-FOUNDER/CTO

♥ Vancouver

at [Edutechs.org](#)

- Co-founded and served as a go-to consultant for the tech stack and AI/ML application in the platform.
- Worked on computer vision and NLP application for the platform such as recognizing handwritten image to text and automatic grading.

Jan 2019 - Aug
Scikit-learn,
XGBoost,SQL,
matplotlib,PySpark,
Docker, MS Azure

DATA SCIENTIST

♥ Toronto

at [Scotiabank\(Artificial Intelligence and Machine Learning Team\)](#)

- Worked in an Agile team for Scotiabank's global fraud detection AI software. Applied ensemble methods such as XGBoost for prediction and inference.
- Performed sensitivity analysis and hyperparameter tuning to improve model performance.
- Designed and code reviewed a ML model which accurately monitored customer consent from speech to text transcriptions. This model improved accuracy by 25% from the previous version.

Jan 2018 -
Aug

SCIENTIFIC SOFTWARE DEVELOPER

♥ Vancouver

at [BC Cancer Research Centre \(Sohrab Shah Lab\)](#)

- Worked on a machine learning research project for integrating genomic data with imaging data of cancer cells to classify dead/alive cells. The classifier resulted in an prediction accuracy of 84%.
- Performed data analysis and implemented machine learning algorithms for cancer cell clustering problems and Microsoft hololens cell visualization app using Python libraries.
- Implemented, extended and documented python APIs and REST interfaces.



EDUCATION

May 2020

B.Sc. in Computer Science

♥ Vancouver

at University of British Columbia

Focus on Machine Learning

Notable courses: Intelligent Systems/AI, Machine Learning, Advanced Database, Computer Vision, Software Engineering, Statistical Learning.



RELEVANT PROJECTS

June 2018

PIMS BC DATA SCIENCE NLP CAPSTONE PROJECT

Language: Python Frameworks: Pandas, Scikit Learn,TextBlob, spaCy

- Worked in a team of 10 to determine intent and create knowledge base from live chat transcripts. The data set was provided by Comm100 which includes online chat sessions.
- The goal of the project was to cluster/correlate chat sessions and build a knowledge base in an automated way using mathematical models which we successfully achieved.



Publication

- [Scalable whole genome sequencing of 40,000 single cells identifies stochastic aneuploidies, genome replication states and clonal repertoires.](#)*
- [Clonal Decomposition and DNA Replication States Defined by Scaled Single-Cell Genome Sequencing.](#)**

* <https://www.biorxiv.org/content/early/2018/09/13/411058>

** <https://www.sciencedirect.com/science/article/pii/S0092867419311766>



Programming Languages

- Python Competent (2 years)
Experience : Scikit-learn, Machine learning algorithms, Django- UBC EOSC website, Rhoads, NLP
- Java Competent (1 year)
Experience : Restaurant App, Advanced Calculator, DNS Server, FTP Client, Gym Database using JDBC
- Unix/bash Competent (2 years)
- SQL Competent (1 year)
Experience : GYM Database, UBC EOSC website
- C Basic (8 months)
Experience : FTP Server , x86 implementation



Web development and Design

- HTML and CSS - Competent(4 months)
Projects : UBC Eosc website, Rhoads website
- TypeScript - Basic (3 months)
Projects : Insight UBC (course project)
- Django - Proficient (8 months)
Projects : UBC EOSC website, Rhoads website



Machine Learning

- Python - scikit-learn, Pandas, matplotlib
- PySpark
- Xgboost
- TensorFlow*
- Microsoft Azure

*Currently learning for project



Dev-ops

- Github
- Docker
- Jira