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.
- Currently working on integrating computer vision and NLP application for the platform.

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
Django,Pandas,Scikit-learn,PostgreSQL HTML/CSS/JS, matplotlib,MS Azure,Github,Linux

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