# **Jasmeetsingh Khalsa**

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## **EDUCATION**

**Master of Science, Computer Science** 

January 2021 - Present

Washington State University, Pullman, WA

# **Bachelor of Engineering, Computer Engineering**

July 2015 – May 2019

University of Mumbai, India

## **TECHNICAL SKILLS**

Programming Languages: Python, SQL, Java, C (Programming Language), JavaScript, HTML, CSS

**Databases:** MySQL, Postgres, SQLAlchemy, Django ORM

**Environments & IDE:** Anaconda, Jupyter, Colab, PyCharm, VS Code, Postman **Frameworks, VCS, APIs:** Django, Flask, Github, Azure DevOps, REST API, XML, JSON

**PROFESSIONAL EXPERIENCE** 

## Software Development Intern | UnoBot Inc, Mumbai, India

## November 2020 - February 2021

- Worked on rewriting/creating APIs that adds new features in its functionalities by accepting different formats of inputs, wrote extensive test cases for each new feature which resulted in 100% compliance.
- Migrated SQL queries to Django ORM to provide better performance.
- Identified areas for modifications in existing programs by extensively using debugging tools to investigate the bugs and issues and subsequently worked on solving them.
- Used Git for version controlling and regularly pushed files to Azure DevOps

# Python Developer Intern | Trivia Softwares, Mumbai, India

**June 2020 – September 2020** 

- Written Python Scripts to parse unorganized data from API calls and used it to extract information to either process further or to store it into SQL server.
- Got exposure to domains such as GUI development, PDBC, Application Development.

#### **ACADEMIC PROJECTS**

# Toxic Comment Classifier - Python, Machine Learning, Flask

December 2021

- Performed Exploratory Data Analysis & Data Preprocessing on a large dataset of Wikipedia comments to understand the structure of data and to preprocess the data(remove numbers, punctuations, stop words etc.)
- Transformed the preprocessed data into feature vectors using TF-IDF Vectorizer.
- Implemented Logistic Regression, KNN, Multinomial Naive Bayes and Random Forest Classifiers on transformed data and obtained average F1 score of **89.48%** for each label.
- Developed a Front-End UI using Flask to classify a user provided sentence using trained Random Forest Classifier.

## Analysis of Covid Data Using Geographic Networks – R, Network Science

May 2021

 Created networks, Analyzed, and visualized the spread of Covid-19 using a geographic network (called MSOA) of Leicester city which is a small area in UK and showed how a network structure allows us to create powerful features intuitively and quickly.

## Student Management System - Python, PDBC, SQLite3, Tkinter, Beautiful Soup

December 2020

- Successfully built a management tool with a real-life application to manage student data.
- Designed and created a database in SQLite3 to store records of students like Roll Number, Name and Marks.

# **Sorting Visualizer –** Python, Tkinter, Sorting Algorithms

**November 2020** 

- A python GUI based application that helps user to visualize how different sorting algorithms work when sorting an array. Six of the most popular sorting algorithms were implemented here
- Successfully Implemented 6 most popular sorting algorithms.

## Handheld Gaming Console – C Programming

**April 2019** 

- Led a team of 4 to build a game engine for embedded devices with collision detection and 2D graphics.
- Created a game called 'Cars' in handheld console that showed the use for this game engine.

# **Achievements, Certifications and Extra-Curricular**

- 1st place in a coding competition Organized by Tech-Cryptors
- Elected Senator at Graduate and Professional Student Organization (GPSA) to represent Graduate and professional students of Electrical Engineering and Computer Science Department.
- TensorFlow Developer Specialization by Deeplearning.ai
- Algorithmic Toolbox by University of San Diego