

JASMEETSINGH KHALSA

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EDUCATION

Master of Science, Computer Science, 3.84

Jan '21 - Present

Washington State University, Pullman, WA

- **Relevant Coursework:** Advanced Algorithms, Software Design & Architecture, Human Computer Interaction, Machine Learning, Data Science, Neural Network Design and Application, Elements of Network Science, Graph Theory

Bachelor of Engineering, Computer Engineering

June '15 - May '19

University of Mumbai, Mumbai, IN

- **Relevant Coursework:** Object-Oriented Programming Methodology, Data Structures, Analysis of Algorithms, Software Engineering, Structured Programming Approach, Operating Systems, Database Management Systems

EXPERIENCE

Intel Corporation | Software Engineer Intern

May '22 – Nov '22

Tools Used: Python, Pytest, Git, Github, CI/CD, Jira, DBMS, Automation, Doxygen

- Added new user requested features, fixed bugs & issues through Jira trackers on internal database management tool
- Refactored Github scripts that reduced code duplication, reduced maintenance burden, Improved flexibility by enhancing the modularity and enable more customer control
- Developed Unit test scripts using Pytest to test Github scripts, log defects and prepare test reports resulting in a streamlined feedback loop increasing bug detection speed by 30%
- Automated documentation process in intel project using comments in code through doxygen
- Completed the entire development process that includes proposing ideas, writing initial design document, leading design reviews, implementation, functional and integration testing and deployment.

UnoBot Inc. | Software Development Intern

Nov '20 – Feb '21

Tools Used: Python, SQL, Django, REST APIs, Postman, JSON, Postgres, SQLAlchemy, Redis, Azure DevOps

- Designed REST APIs for usage of application to integrate various social media platforms
- Integrated different mediums like Twitter, Facebook, Instagram, and Google Android Play Store into the platform using APIs provided by respective platforms
- Developed SQL triggers, functions & stored procedures, SQL queries and tuned PL/SQL queries using PL/SQL Developer
- Migrated SQL queries to Django ORM to provide faster processing of data

PROJECTS

Toxic Comment Classifier | Python, Scikit Learn, Nltk, Word cloud, NumPy, Matplotlib, Machine Learning

Dec '21

- Performed Exploratory Data Analysis & Feature Engineering to understand key performance indicators
- Restructured preprocessed data into feature vectors using TF-IDF Vectorizer to leverage multi-label classification
- 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
- Applied Hyper-parameter tuning and Ensemble Learning to improve the accuracy of model by 6.52% which resulted in overall accuracy of 96%

Sorting Visualizer | Python, Tkinter, Algorithms

Nov '20

- A python GUI based application that helps user to visualize how different sorting algorithms work when sorting an array
- Implemented design principles from Johnson and Norman texts to create a well-structured & intuitive UI for the project.
- Successfully Implemented 6 most popular sorting algorithms

TECHNICAL SKILLS

Languages: Python, Java, C/C++, C#, SQL, HTML/CSS, JavaScript

Technology: MySQL, PostgreSQL, SQLite3, MongoDB, Redis, SQLAlchemy, REST APIs

Developer Tools: Git, Github, Linux, Azure, VS Code, IntelliJ, Eclipse, Anaconda, Django, React, Flask, AWS, XML, Postman

LEADERSHIP & EXTRA-CURRICULAR

- 1st place in a coding competition - Organized by Tech-Cryptors Nov '18
- Elected Senator at GPSA for Graduate students of Electrical Eng. and Computer Science Department Aug '21 - Present
- Algorithmic Toolbox by University of San Diego Sep '21