# **Omkar Naik**

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### **EDUCATION:**

### Master of Science, Artificial Intelligence

Aug 2021 - Dec 2023 (expected)

San Jose State University, San Jose, USA.

GPA: 3.7

### **Bachelor of Engineering, Information Technology**

July 2015 - June 2019

Fr Conceicao Rodrigues College of Engineering (Mumbai University, Mumbai, India).

#### **TECHNICAL SKILLS:**

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

**Frameworks and Tools:** Django, Flask, PowerBI, Tableau, RASA, Pandas, Numpy, Sklearn, Tensorflow, Keras, Pytorch, Sci-kit Learn, SciPy, matplotlib, seaborn, plotly, ipywidgets. NetworkX.

Databases: MySQL, MSSQL, MongoDB, SQLite, Oracle, PostgreSQL, DataFrame.

**Other:** Jira, Vscode, Jupyter Notebook, pycharm, Microsoft Visual Studio, R studio, Machine learning, Deep learning, Natural Language Processing, Time series, Linux, Containerization, DevOps, Scrum, Agile Development, Test Driven Development, solution optimization.

### **PROFESSIONAL EXPERIENCE:**

### Software Engineer Intern, Intel Corporation. (San Jose, California, United States)

May 2022 - Present

- Built a visualization tool software that helps analyze the shortest path of the router. The tool supports the engineer to analyze the problematic and efficient path which saves time by 30% to debug.
- Developed a Python script for Automation that helps engineers to detect and analyze burnt fuse. The output file data saves time of 2-4 hours to go through each and every file and detect the burnt fuse.
- Python code that automates the task and helps identify the key elements and errors in the log file, preprocess binary data. Saves up to 50% of the time for the engineer in handling binary data by analyzing the generated log file.
- Developed a Python code for dynamic-plist handling for power-on and silicon release. The code helps in patgen timeout issues on the tester. It helps to avoid errors and save runtime that was seen on previous models.
- .Net, C# application for file transfer from the Penang server to the San Jose server. The application helps to reduce the turnaround time of 4-12 hours as files are in different server and to access need permission.

### Software Engineer Intern, Blankchq Information Technologies Pvt Ltd. (Mumbai, India)

July 2018 - April 2019

- Implemented a Computer Vision model using Deep Learning that assists retailers in keeping track of the stocks based on business needs and integrated time series techniques to get sales predictions during festival season.
- Improved the business profit by integrating a machine learning model for predicting future stock demands.

# **ACADEMIC PROJECTS:**

## **Tech Hit Technical Support Application**

Aug 2021 – Dec 2021

- Developed a Full-Stack application for a ticketing system.
- Built UI's for login, registration, and dashboard management for multiple users.
- Tech Stack used: Python, Tkinter library for GUI, SQLITE, and bcrypt for Encryption Decryption.

Fake News Detection Jan 2022 – May 2022

- Developed a tool that detects fake articles with the help of a 100k dataset. Secured 1st position in Kaggle Leaderboard.
- Data preprocessing steps: feature selection, removing stop words, removing punctuation, and Lemmatization.
  Vectorization techniques used: TFIDF, word2vec, Google word2vec, and Glove Stanford vectorization.
- Machine Learning models: Xg boost, Random Forest, SVM, Logistic Regression, RNN with LSTM.

## Personal Trainer ChatBot (RASA)

Jan 2022 – May 2022

- Developed a Personal Trainer Chatbot to recommend a diet based on daily routine using the RASA library.
- Implemented APIs to fetch: BMI data, and TDEE data based on your lifestyle, macronutrients of food, and locate nearest gym.
- Tech Stack: Python, database SQLite, Deployed on Slack

### Petal to the Metal (Flower classification with TPU/GPU)

Jan 2022 – May 2022

- Data and Task: Image classification on a dataset, 20,000 RGB images of flowers of 104 different classes.
- Data Preprocessing: Split into train, validation, and test sets, performed normalization, data augmentation, and data shuffling
- TransferLearning Model Architecture & TechStack: VGG19, DenseNet201, ResNet12. Python, Keras, Tensorflow, Pytorch.

### **Lesion Segmentation for Breast Cancer Diagnosis**

Aug 2022 – Dec 2022

- Task: Image segmentation on MRI 2D images for breast cancer detection. Integrated with Rasa chatbot user-friendly interface.
- Data Preprocessing: normalization, data augmentation, and data shuffling.
- Segmentation Models & Tech Stack: Unet, LinkNet, and MSGRAP. Python, Keras, Tensorflow, Pytorch.

### Steam Game Recommender System

Jan 2023 - May 2023

- Game recommendation systems that recommend games and users for multiplayer. Preprocessing on multiple data of 500 MB.
- Model: SVD matrix factorization, ALS, NCF with and without metadata, KGCN, GNN, and RNN with LSTM layers.
- Tech Stack: Python, Keras, Tensorflow, Pytorch

## **Federated Recommender System**

Aug 2022 – May 2023

- Developed full stack recommender system application using Federated learning for data privacy and NCF for recommendation.
- Tech Stack: pytorch, and tensorflow modules for building the models. Python Django framework, HTML, CSS, and Javascript.