# Akash R Chavan

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### **SUMMARY**

Software professional with 5 years' experience in software design, development, testing. Able to work collaboratively as well as independently to deliver assigned tasks on time. Quickly adapts/learns new technologies, tools, languages, and team environment. Currently seeking a **Full Time Opportunity in 2024**.

#### **EDUCATION**

# California State University, Los Angeles

Master of Science in Computer Science – GPA 4.00 | Los Angeles, California

April 2024(Expected)

# Deogiri Institute of Engineering and Management Studies, Aurangabad

Bachelor of Engineering in Computer Science and Engineering - GPA 3.46 | Aurangabad, India

Jul 2016

### PROFESSIONAL EXPERIENCE

### **FOSSEE IIT Bombay** – Research Associate

Feb 2019 - May 2022

- Developed Yaksh, an e-learning platform using Python, Django, Django Rest Framework, Redis, Celery, Vue.js, Selenium, HTML, CSS, jQuery, Bootstrap, and AWS EC2, AWS S3, Git.
- Created a progressive web application for the test interface using Vue.js and developed a chat, feedback, and contact system for students, teachers & course creators.
- Implemented Diff feature to compare coding answer attempts and show the changes between them.
- Contributed to the development of the Yaksh API, created a discussion forum for the online test interface, optimized site performance, and implemented a notification system for Yaksh.

### **IEOR IIT Bombay** – Research Assistant

June 2020 - Oct 2020

- Worked on timetabling and capacity utilization/simulation tools using Python, Java, Pandas, NumPy, and Bash.
- Developed Python scripts to ensure accurate data access, manipulation, and reporting functions, and created and maintained Python scripts to automate workflows.
- Deployed Applications in AWS cloud.

### Virtual Labs IIT Bombay – Research Assistant

Oct 2017 – Feb 2019

- Developed remote-triggered virtual labs Single Board Heater System (SBHS) using Django, Flask, Celery, JavaScript, jQuery, HTML, CSS, Bootstrap, Apache, Git.
- Improved efficiency and reliability by implementing a load-sharing master-slave architecture with Raspberry Pi's, and a centralized database to prevent data inconsistency.
- Wrote a lightweight Flask API for Raspberry Pi's, refactored the codebase to make it compatible with Python3 and PEP8 standards, and improved the Slot Booking System.
- Created a Moderator Dashboard for monitoring the SBHS web interface in real-time.

# **TECHNICAL SKILLS**

Programming Languages: Python, JavaScript, C/C++, Java, TypeScript

Web Development Framework and Libraries: Django, Flask, Node.js, Express.js, React, Vue, Next.js

<u>Database Technologies:</u> MySQL, MongoDB, PostgreSQL

<u>Data Science and Machine Learning:</u> Pandas, NumPy, Matplotlib, scikit-learn, Tensorflow, Keras, Transformers <u>Cloud Computing Services:</u> AWS EC2, AWS S3, AWS Lambda, Google Cloud Platform, AWS DynamoDB

Other Relevant Technologies: Git, Docker, Kubernetes

### **ACADEMIC PROJECTS**

# Flickr8K Image Captioning (CNNs & LSTMs)

- Developed an image captioning model using Convolutional Neural Networks and Long Short-Term Memory networks.
- Implemented feature extraction and sequential data processing to generate descriptive captions for images in the Flickr8K dataset.
- Enhanced skills in deep learning, computer vision, and natural language processing, delivering a model that effectively bridges the gap between visual data and textual description.

### **Tourism Package Prediction**

- Undertook a project in Machine Learning course to develop a business model for expanding customer base.
- Focused on introducing a Wellness Touring Package to attract a new customer.
- Analyzed customer data to identify potential buyers for the new package.
- Provided strategic recommendations to Policy Makers and Marketing Teams based on data analysis.
- Developed a predictive model to target existing and potential customers efficiently, optimizing marketing spend.

# Stock Forecasting using State-of-the-art Machine Learning Algorithms

- Developed a web-based machine learning solution for predicting daily maximum and minimum stock prices.
- Employed supervised machine learning regression techniques, with stock price as the dependent variable.
- Conducted feature engineering to determine independent variables influencing stock prices.
- Implemented advanced machine learning algorithms to enhance prediction accuracy.

Taskr: A task management Web App

• Built a Task management application which features personal task boards for organizing and tracking tasks.

# PERSONAL PROJECTS

# twweet-cli GitHub

The command-line interface designed to enable users to compose and publish tweets directly from their command-line interface, eliminating the need to open a web browser or use a separate Twitter application. This project aims to streamline the process of sharing thoughts, updates, and content on Twitter while providing a convenient and efficient way to interact with the platform.

# subsheets GitHub

Utility to create subsheets in excel file. A tool designed to simplify the process of managing subsheets within Excel files. This utility aims to enhance efficiency and organization by allowing users to quickly generate and organize subsheets, thereby streamlining data management tasks.