ADARSH BASAVARAJ GADEKAR

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EDUCATION

University of Southern California, Viterbi School of Engineering — **Los Angeles, USA**
Masters of Science in Computer Science — August 2022-May 2024

Vidyalankar Institute of Technology — **Mumbai, India**
Bachelor of Computer Engineering — June 2018-August 2022

TECHNICAL SKILLS

- **Languages:** Python, C, C++, Java, SQL, Dart, Git, Bash **| Web Technologies:** HTML, CSS, Javascript, React, Node.js, Next.js, PHP, Django
- **Software Technologies:** Pandas, NumPy, Seaborn, Tensorflow, NLTK, Scikit, Firebase, Jupyter, PostgreSQL
- **Relevant Course:** Algorithm Analysis, Database Systems, Artificial Intelligence, Information Retrieval and Web Search Engines

EXPERIENCE

TCR Innovation — **Mumbai, India**
Data Science Intern — June 2021-August 2021

- Predicted used car price based on factors such as mileage, model, year, and deployed K-means, Linear Regression, Random Forest, and Gradient Boost machine learning algorithms.
- Developed a prediction model of HR analytics, envisioned employee performance, and recorded it based on K-means, Linear Regression, and Random Forest algorithms.

ACADEMIC PROJECTS

Pente Game – Artificial Intelligence | Python3, NumPy

- Implemented minimax with alpha-beta pruning algorithm in order to create a Pente-game playing agent.
- Designed heuristics to identify the optimal placement for game-winning moves.
- Allowed agent to play at different depths, depending upon the game time remaining.

Sequence Alignment for DNA Sequences - Algorithms | Python3

- Solved the sequence alignment problem to align two DNA sequence strings X and Y using a regular dynamic programming approach and a combined divide-and-conquer and dynamic programming approach.
- The regular dynamic programming solution uses O(m*n) space, while the divide-and-conquer and dynamic programming approach uses O(n) space. Note that m, n are the respective lengths of the strings X and Y.

Ski Resort Nearest Lodge – Artificial Intelligence | Python3

- Developed search algorithms for finding the closest lodge to a Ski Resort using BFS, Uniform Cost Search, and A* algorithms.
- Incorporated stamina as the only parameter for BFS and UCS and reinforced elevation change cost with momentum and stamina in the A* algorithm to minimize path cost.
- Utilized heuristic functions to optimize algorithm performance on a dataset of varying ski resorts and achieved significant improvements in search speed and path cost compared to traditional algorithms.

Sentiment Analysis of Twitter Comments – Natural Language Processing | Seaborn, NLTK, TensorFlow

- Implemented Naïve Bayes Text Classification to classify comments as positive, negative, or neutral based on their sentiment.
- Pre-processed text data by tokenization, stemming, and removing stop words before feeding it into the classifier. Evaluated performance of the classifier using accuracy score and generated confusion matrix with plot for visualization.
- Experimented with different classifiers such as Logistic Regression, SVM, and Bernoulli Naive Bayes, and compared their performance metrics. Found Logistic Regression outperformed SVM, which in turn performed better than Bernoulli Naive Bayes.

Konnect – Mobile Application Development| Flutter, Firebase, Adobe XD

- Developed a multi-platform (i.e., Android and iOS) mobile application to connect like-minded students at college and build a network to share and enhance skills in the domain of their penchant within the college premises.
- Integrated multiple chat groups (E.g., Theater, Web-Dev, etc.) with group admin system, post page with like and comment facilities, story tab and user authentication using college email addresses.
- Led the front-end programming as well as back-end activities such as Posts Page, Chats Page and Group Admin System.

LEADERSHIP AND INVOLVEMENT

Computer Engineering Students Association — **Mumbai, India**
Tech Team member — August 2019-August 2020

- Organized workshops on Firebase, Blockchain, DevOps, and Google study jam on Cloud.
- Contributed to the design and development of the homepage of the CESA website.