

# Mohini Rana

[mohinirana14@gmail.com](mailto:mohinirana14@gmail.com) | (+1) 7819529913 | Santa Clara, CA | vGHC'22 | [LinkedIn](#)

Detail-oriented data scientist with 2+ years of hands-on experience in data analysis, modeling, and machine learning. Strong expertise in Python, R, SQL, and Tableau to solve challenging business problems in a fast-paced environment. Can start from April 2023. **Expected Graduation: June 2023**

## SKILLS

**Programming Languages:** Python (Pandas, NumPy, Scikit, NLTK), R, C++

**Tools:** Git, Tableau, JIRA, MS Excel, Google Analytics, Mailchimp

**Databases:** SQL, PostgreSQL

**Big Data Techniques:** Hadoop, Hive, PySpark

**Area of Expertise:** Statistical and ML techniques, Supervised and Supervised Learning, NLP, Deep Learning, Data Wrangling, MS Excel, Statistics

## EDUCATION

**Master of Science, Computer Science and Engineering**

**Sep 2021 - Jun 2023**

**Santa Clara University, Santa Clara, CA**

**GPA - 3.5 / 4.0**

Relevant Coursework - Machine Learning, Pattern Recognition & Data Mining, Big Data, **Product Management**, Design and Analysis of Algorithms

**Bachelor of Engineering, Information Technology**

**Jul 2015 - Jun 2019**

**University of Pune, Pune, MH**

**GPA - 3.5 / 4.0**

Relevant Coursework - OOP, Database Management Systems, Artificial Intelligence, Machine Learning Applications, Social Media Analytics

## PROFESSIONAL EXPERIENCE

**Graduate Assistant - Pattern Recognition & Data Mining | Santa Clara University | Santa Clara, CA**

**Sep 2022 - Dec 2022**

- Co-created assignments on various Machine Learning and Deep Learning algorithms with the professor.
- Directed and guided students in addressing their academic concerns and curriculum questions and provided constructive feedback.
- Boosted class performance by 75% and increased class attendance and participation through active contributions.

**Data Analyst | Santa Clara University | Santa Clara, CA**

**Nov 2021- Mar 2022**

- Worked closely with the Program Managers at the Miller Center for Social Entrepreneurship to decrease the inefficiency of manually assigning mentors to mentees for the cohort program.
- Managed and updated databases in Excel, obtained data from various sources and evaluated potential mentors offering a selection of the most suitable ones based on their proficiency, abilities, and experience.
- Experience of using quantitative techniques in solving highly complex data intensive problems.
- Applied optimization techniques to accelerate mentor assignment process resulting in a reduction of **5-6 days** of manual effort, saving over **\$1000**.

**Data Scientist | Bristlecone | Pune, India**

**Jul 2019 - Sep 2021**

- Collected, compiled, and analyzed data from various sources to identify features, performed data preprocessing and cleaning, designed **time-series analysis and forecasting algorithms**, and integrated them into the backend pipeline utilizing **Python** libraries.
- Collaborated with team lead and manager to determine technical requirements and curated a comprehensive dataset to automate processes, resulting in a successful partnership with a **\$44B client**.
- Conducted **competitor analysis** to understand our organization's and its competitors' strengths, weaknesses by creating **Tableau** dashboards.
- Led the initiative to improve the accuracy of existing models by introducing a new ML model **SARIMAX** for one of the clients resulting in a **10%** improvement in accuracy from an initial **78% to 88%**.
- Formulated a responsive demand forecasting solution leveraging AI-powered ML algorithms considering external and internal demand factors.
- Co-partnered with team lead and manager to engage in quantitative analysis and address business issues, resulting in improved model accuracy.

**ML Engineer Intern | DigitalMain Inc. | Pune, India**

**Mar 2018 - Jun 2019**

- Built a Proof-of-Concept for **Machine Learning** project - Similar Question Identification implementing **Neural Networks, Deep Learning and NLP**.
- Developed and trained an ML model in **Python** after trial and testing different models by experimenting with various models, evaluating their performance, and selecting the best one based on criteria such as accuracy, precision, and recall. The accuracy was above **82% (highest)**, with a **reduced log loss of 36% (lowest)** for the **CNN Model**. <https://github.com/MohiniRana/My-Profile/blob/main/Survey%20Paper.pdf>

**Business Analyst Intern | Vidya Online Services | Pune, India**

**Aug 2018 - Oct 2018**

- Created Business Requirement Documents (BRD) for two clients, which aided in informed decision-making by senior BAs and project managers.
- Utilized Agile Scrum methodology to optimize project management and enhance customer satisfaction, resulting in successful on-time and budget-compliant software delivery for multiple clients.

## AWARDS & RECOGNITIONS

Received **Brilliant Beginner Award** and **SPOT Award** for my contributions to projects leading to several new client acquisitions at Bristlecone.

## ACADEMIC PROJECTS

**House Price Prediction (May 2022)**

- Implemented a machine learning-based model - Linear Regression in Python and achieved an accuracy of 86% on the housing price dataset.

**Bankruptcy Prediction (May 2022)**

- Predicted a list of 7 firms out of 885 that were likely to go bankrupt employing Logistic Regression on a dataset of credit information, taking into account factors such as short-term liquidity, operational net-working capital, and cumulative profitability, using R programming language.

**Email - Spam / Not Spam (May 2022)**

- Demonstrated an SVM Model in R to classify emails as spam or non-spam with an accuracy of 94.7%.