

UMANG PATEL

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EDUCATION

Master of Science in Software Engineering

San Jose State University (SJSU)

San José, CA

(Expected) May 2025

- **Involvement:** Software and Computer Engineering Society (SCE), IEEE SJSU.
- **Relevant Coursework:** Software System Engineering, Software Engineering Process, Software Quality Assurance and Testing, Data Mining, Machine Learning, Enterprise Software Platforms.

Bachelor of Science in Software Engineering

State University of New York at Oswego (SUNY)

Oswego, NY

May 2023

- **Cum laude** CGPA: 3.5 | **President's List:** Spring 2021, Spring 2023 | **Dean's List:** Spring 2020, Spring 2022, Fall 2022.
- **Leadership:** Resident Assistant (Riggs), Admissions Office Assistant, Campus Tour Guide, Resident Hall Council (Hart).
- **Relevant Coursework:** Data Structures and algorithms, Database Management Systems, Machine Learning, Graphical User Interfaces, Software Engineering, Safety Requirements Engineering, Software Quality, Software Design, and Web Services.

TECHNICAL SKILLS

- **Programming Languages:** Python, Java C, C++, SQL, HTML, CSS, JavaScript.
- **Expertise:** Scikit-learn, NumPy, OpenCV, NLP, RNN, CNN, TensorFlow, Keras, matplotlib.
- **Data Analysis Skills:** Data Processing, Exploratory Data Analysis, Data Visualization, Feature Selection.
- **Machine learning algorithms:** Linear & Logistic Regression, Decision Trees, Random Forest, K-means clustering.
- **Tool and Technologies:** Git/GitHub, Jenkins, Ansible, Streamlit.io, Ngrok, Agile SCRUM.

EXPERIENCE

IBM x SUNY – Software Design

Oswego, NY

Aug 2022 - Dec 2022

- Engineered an efficient software application for retrieving and displaying vital messages, based on specific reactions, from Discord onto a dedicated website, resulting in an enhanced user experience and streamlined content access.
- Restructured project efficiency by 20% through expert translation of IBM stakeholders' requirements into actionable UML diagrams, resulting in a more streamlined development process and accelerated time-to-market for new features.
- Mastered agile and stand-up development methodologies, achieving 100% completion of all project requirements within project timelines.
- Coordinated with over 5 teams to build, refine, and gain practical experience in development process management techniques applicable at a professional level.
- Analyzed and implemented a sophisticated microservice architecture creating four core elements: host, API services, JWT verification, and Discord Integration.

PROJECT EXPERIENCE (Machine learning)

Telehealth-n-Mental-Health-Dynamics – Data Analysis Streamlit.io App

Aug 2023 - Dec 2023

- Executed data visualization techniques, translating intricate data trends into 21 clear visual representations. Enhanced stakeholder understanding and decision-making through visually impactful presentations.
- Leveraged collaborative tools to conduct data-driven Exploratory Data Analysis (EDA) resulting in the identification of 15% more mental health dynamics and telemedicine utilization trends compared to previous methods.
- Synthesized strategic insights from analysis, distilling complex data into actionable recommendations. Identified four key factors influencing mental health indicators.
- Addressed disparities in mental health access through in-depth analysis of demographic and socio-economic variables, emphasizing a systematic approach to identifying and resolving complex issues.

Price Vision – Machine Learning Software

Jan 2023 - May 2023

- Develop an application for stock price predictions and utilizing Long Short-Term Memory (LSTM) algorithms achieving an exceptional mean absolute percentage error of 5.4% for prediction values.
- Optimized backend machine learning architecture by 35% to ensure smooth data flow by utilizing ngrok for serving tunneling, enabling secure and efficient bulk data transfer.
- Designed an interactive React interface allowing users to monitor up to 15 different stocks seamlessly, featuring real and predicted stock values for 7 upcoming days, combined time series data, company information, and relevant news articles.
- Employed Flask to develop robust API functionality, resulting in a 20% improvement in data retrieval efficiency.