UMANG PATEL

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EDUCATION

Master of Science in Software Engineering   San José, CA
San Jose State University   (Expected) May 2025

- **Involvement**: Software and Computer Engineering Society (SCE), IEEE SJSU.
- **Relevant Coursework**: Software System Engineering, Data Mining, Enterprise Software Platforms.

Bachelor of Science in Software Engineering   Oswego, NY
State University of New York   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.

EXPERIENCE

IBM x SUNY (Collaborative Project)   Oswego, NY
Software Design   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.
- Demonstrated exceptional communication and teamwork while collaborating closely with IBM stakeholders, translating needs into actionable UML diagrams led to a 20% increase in project efficiency.
- 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

PriceVision - Software Development   Oswego, NY
(Course/Team Project) - https://github.com/umangptl/PriceVision   Jan 2023 - May 2023

- Develop an application for stock price predictions and utilizing Long Short-Term Memory (LSTM) algorithms.
- Showcased interactive graphs present both real and predicted stock values for the upcoming 7 days, accomplishing an exceptional mean absolute percentage error of 5.4% for prediction values.
- Constructed a user-friendly React interface, empowering users to select and monitor up to 15 different stocks, interface seamlessly integrates time series data, company information, and pertinent news articles.
- Optimized backend architecture for smooth data flow, utilizing ngrok for serving tunneling. Employed Flask to create robust API functionality, achieving a 40% improvement in data retrieval.

WeatherCast- Web Services   Oswego, NY
(Course/Individual Project) - https://github.com/umangptl/WeatherCast   Jan 2023 - May 2023

- Designed a web-based application using Spring Boot and implemented a Model-View-Controller (MVC) pattern, with six endpoints to deliver real-time weather information for any location worldwide.
- Integrated to APIs, making 60 calls per minute, and employed PostgreSQL database to efficiently store user data and favorite cities data for enhanced performance and data accessibility.
- Reengineering weather API for improved user experience: evolved from 3-hour, 5-day data to user-focused 3-hour current-day and daily max-min forecasts.
- Prioritizing application security by integrating Google OAuth for authentication and implementing CSRF tokenization, resulting in a 40% reduction in potential security vulnerabilities and ensuring the safeguarding of user data.

SKILLS

- **Programming Languages:** Java, Python, C, C++, Scala, Prolog, Clojure.
- **Web Technologies:** HTML, CSS, JavaScript, React.js, Node.js, Vue.js, Flask, Spring, RESTful API.
- **Database:** SQL, MySQL, PostgreSQL**,** MongoDB.
- **Frameworks and Servers:** Hibernate, Spring-boot, Java-Spark, Drop-wizard, JUnit, Apache Tomcat,
- **Tool and Technologies:** Git/GitHub, ngrok, Jupyter Notebook, Google Collab, Agile/Scrum/Waterfall.