SUMANTH U H

9483107584 | sumanthhegde356@gmail.com | Portfolio | github.com/Sumanth007 | blogs

EDUCATION

MCA Bangalore, Karnataka
PES University, CGPA: 8.3/10.0, Pgcet Rank : 95 *2022 - 2024*

BCA Mysore, Karnataka
St.Joseph's FGC, CGPA: 8.6/10.0 *2019 - 2022*

EXPERIENCE

Software Engineer
SECPOD TECHNOLOGIES *June 2024 - March 14 2025, Bengaluru, Karnataka*

- Optimized the SCAP Repo website by integrating the Singleton design pattern for efficient database operations and designing a streamlined CVE data pipeline from NVD and CISA. Refactored data layer logic, reducing complexity from $O(n^2)$ to $O(n)$ using HashMap, and implemented **binary search** for fast CVE score retrieval, enhancing accuracy and efficiency in vulnerability assessment.
- Revamped and optimized the CRE release process by implementing advanced algorithmic techniques and parallel processing, reducing execution time from **2 hours** to just **3 minutes**, thereby reducing resource usage while increasing efficiency.
- Created multiple data converters and parsers, including tools for XML, HTML, and CSV, enhancing data interoperability and automation.
- Developed a quality assurance framework in Python to ensure content meets all edge and standard test cases, improving release quality.
- Created multiple NSIS signature scripts for installers to silently install the application, handle duplicate application issues, and smoothly transfer app data from the old application to the new application.
- Worked with the OVAL language to conduct in-depth analysis of macOS, Linux, and Windows operating systems, identifying vulnerabilities and assessing system configurations to enhance security and compliance.
- Developed a high-performance JSON Generator using **Doubly Linked Lists** and **HashMaps** to efficiently update release dates and severity levels for millions of Linux packages, ensuring **real-time accuracy**, **daily updates**, and optimized performance.

PROJECTS

Drug Disease Prediction | *C# ASP.NET, Bootstrap, HTML, CSS, JavaScript, SQL Server*
- The project is a web-integrated machine learning (ML) application focused on summarizing user posts related to drug experiences, side-effects, and disease symptoms.
- It serves as a medical sector application, collecting posts from users including medical practitioners, patients, and administrators.
- Utilizes Association Rules for pattern discovery, enabling the system to suggest drugs based on user reviews and symptoms. Here it is using Implements the Eclat algorithm for suggesting drugs based on discovered patterns in patient reviews.
- Conducts efficiency testing of Eclat and Apriori algorithms to compare prediction speeds.
- Provides sentiment analysis on patient reviews to understand the overall sentiment towards specific drugs

Blood Donor Prediction And Analysis | *Java Servlet, JSP, Python, MySql, Js, Bootstrap.*
- Web-integrated machine learning project focused on blood donor prediction and classification using Logistic Regression,XGBoost Classifier algorithms and K-means clustering.
- Utilized previous blood donor datasets to predict future blood donors and classify them into distinct categories, contributing to enhanced efficiency in blood donation management.
- K-means Clustering algorithms is used to categorise regions as high and low blood donating regions in Karnataka
- Demonstrated proficiency in data collection, statistical analysis, and machine learning techniques to derive actionable insights for healthcare professionals and organizations.

TECHNICAL SKILLS

Programming Language : Java, Python, C

Web Development Skills : HTML, CSS, JS, Java-Servlets, Bootstrap.

Machine learning Skills: Worked with many ML Algorithms
Libraries : sklearn, pandas, seaborn, NumPy, Matplotlib

Network Programming : Socket Programming

Databases : MySql, SQL

Developer Tools: Svn, Git, Postman, Visual Studio Code, PyCharm, IntelliJ