Vidhya Lakshmi Palanimurugan

(617) 956-2364 | vaithilingampalani.v@northeastern.edu | Website | LinkedIn | GitHub

EDUCATION

Master's in Analytics - Northeastern University, Boston, USA Jan. 2022 – Dec. 2023
Probability Theory & Statistics, Communication & Visualizations for Data Analytics, Intermediate Analytics, Enterprise Analytics, Data Mining, Data management & Big Data, SQL & Data Warehousing, Risk Management GPA: 3.9/4.0

Bachelor of Engineering in Computer Science Engineering - Anna University, Chennai, India Aug. 2009 – Apr. 2013
Object Oriented Programming, Database Management Systems, Operating Systems, JAVA Programming, Data Structures, Software Engineering, Computer Networks, Software Quality Management, Data Warehousing and Data Mining GPA: 8.3/10.0

WORK EXPERIENCE

Data Science Developer | CrowdDoing, El Dorado Hills, USA May 2024 – Present
- Designed, created, and implemented the frontend for a web-based chatbot using the Streamlit Python library.
- Developed APIs for user authentication, database servers, and seamless communication between the frontend and backend.
- Authored technical documentation and developed architecture diagrams for the frontend.

Mentor – Storytelling with Data | Northeastern University, Boston, USA Sept. 2022 – Nov. 2022
- Taught data analytics to students at Boston Day and Evening Academy (part of Boston Public Schools), emphasizing Tableau for Storytelling with data, while designing and delivering modules on Data Literacy, Visualization, Joining Data Sets, and Statistics.
- Engaged a diverse student body, tailored teaching methods to individual learning needs, and collaborated with school administration and Northeastern University coordinators to evaluate and enhance program effectiveness for improved student outcomes.

Senior Infra Lead Networks | Mindtree, Chennai, India Aug. 2021 – Dec. 2021
- Analyzed network data and workflows to identify automation opportunities for daily network operations and process enhancement.
- Designed, planned, and implemented changes in network and security devices to enhance network performance and security, aligning with customer requirements.

Network Security and Automation Engineer | Cognizant Technology Solutions, Chennai, India Oct. 2013 – Jun. 2020
- Gathered and analyzed service data for a major North American retailer with 1200 stores, crafting annual reports and recommendations that guided improved service delivery, aiding client decision-making.
- Implemented security policies in Cisco ASA and Firepower firewalls; deployed firewall rules in GCP firewalls using GitHub as a code repository and Jenkins as a deployment tool.
- Acted as the primary point of contact for customer escalations regarding all firewall-related issues within the Google Cloud Platform.
- Automated the configuration of network ports in Cisco switches and Access Point (AP) devices in Cisco Wireless Controllers using Python programming, which led to a 30% reduction in configuration time and driving process improvement initiatives.

ACADEMIC PROJECTS

Product Enhancement for Cyber Security Solutions | Real-time sponsored project | Python | Machine Learning Sept. 2023 – Dec. 2023
- Developed an updated version of a Python application by enhancing the user interface, consolidating menu options, and streamlining navigation for improved usability and efficiency.
- Expanded the application's capabilities by integrating additional modules to support a broader range of SAST tools, aiming for enhanced functionality.
- Implemented GitHub to enable efficient storage and version control for models and predictions, ensuring streamlined management and accessibility.
- Introduced a novel module to visualize and assess model performance and prediction accuracy, providing enhanced insights into the application's functionality and outputs, thereby enriching user experience and decision-making processes.

Severity Prediction of Accidents in New England using Data Mining | R Studio | Data Mining May 2022 – Jun. 2022
- Conducted exploratory data analysis (EDA) on a large dataset of US accidents, focusing on New England states, involving 47 variables and over 43,000 observations.
- Built and compared several predictive models such as Classification Tree, Random Forest, K-Means, and Gradient Boost Method to predict accident severity accurately.
- Identified Random Forest as the most effective, achieving 87.14% accuracy and demonstrating statistical significance in predicting accident severity.
- Demonstrated expertise in feature importance analysis, model testing, and improvement, showcasing the ability to refine models for enhanced accuracy.

Visualizing San Franciso Police Department Incident Reports | Tableau | Data Visualization and Storytelling Feb. 2022 – Apr. 2022
- Leveraged Tableau to create interactive dashboards analyzing San Francisco Police Department's incident reports dataset, revealing crime trends and distributions across police districts from 2019 to 2021.
- Developed visualizations showcasing the top 10 crimes in the Bay Area, their geographical spread, and trends, facilitating comprehensive data interpretation for stakeholders.
- Focused on analyzing Drug Offenses specifically within the Tenderloin district, emphasizing its disproportionate impact and exploring correlations with crime rates in adjacent districts.
- Utilized diverse visualization methods such as bar graphs, treemaps, maps, and side-by-side circle graphs to efficiently communicate intricate data insights, empowering stakeholders with actionable information on crime trends and localized impacts.

SKILLS

Programming: Python, R Programming, SQL, HTML5, JavaScript, Java, Ansible.
Data Visualization Tools: Tableau, Power BI, Excel Charts
Business Tools: GitHub, R Studio, PyCharm, Visual Studio Code, JIRA, Asana, ServiceNow, Jenkins, MySQL Workbench, Google Cloud Platform.
Soft Skills: Communication, Teamwork, Problem-solving, Time Management, Leadership.