Mr . Sam Mochache Onyancha

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Profile

As a Computer Science graduate with a well-rounded foundation in software development, data analysis, and cloud infrastructure, I bring a versatile skill set that offers strong value to progressive organizations

Professional Experience

State Department for Culture the Art and Heritage Aug 2023 – Aug 2024
Intern (Junior IT support specialist) Nairobi, Kenya

- **Technical Support and Troubleshooting**: Provided first-line support for technical issues across various departments, diagnosing and resolving problems related to software, hardware, and network connectivity. My efforts reduced issue resolution time by approximately 30%, contributing to smoother daily operations.
- **System Maintenance and Optimization**: Conducted regular maintenance and updates on institutional computers, including software patches, operating system updates, and hardware checks, to ensure optimal performance and security compliance. This proactive maintenance approach reduced system downtimes and minimized technical disruptions.
- **Network and Security Support**: Assisted in monitoring network performance and security. Tasks included troubleshooting connectivity issues, configuring secure connections, and managing user access levels to sensitive information. This experience reinforced my understanding of network security protocols and data protection requirements in a government environment.
- **Documentation and User Training**: Developed user-friendly guides and documentation for common technical issues and new software implementations. Additionally, conducted brief training sessions to improve digital literacy among staff members, empowering them to solve basic issues independently and reducing the volume of routine support requests.
- **Project Contributions**: Played a supporting role in a departmental migration to cloud-based storage, assisting in data transfers, ensuring secure access, and troubleshooting minor integration issues. This project strengthened my understanding of cloud solutions and data management practices within government IT infrastructures.

Education

KCA UNIVERSITY Nairobi, Kenya

Bs Applied Computing Information Security and Forensics

Bachelor of Science in Applied Computing with a focus on **Information Security and Forensics**, providing a solid foundation in computer science with specialized knowledge in cybersecurity, digital forensics, and data protection. This program covered key areas such as network security, ethical hacking, cryptography, and incident response, along with practical skills in identifying, analyzing, and mitigating cyber threats. Through hands-on labs and real-world case studies, I developed technical proficiency in protecting digital assets and investigating security incidents, equipping me to support secure and resilient computing environments.

Skills

- Big data analytics
- Cybersecurity
- DevSecOps
- SQL , SQLite, MongoDB, Postgresql
- Network engineer
- Cloud infrastructure
- Git and GitHub
- Python [Flask, Django, React, Node-js]
- Fullstack development

Projects

Collision Insight Initiative Jan 2024 – Jun 2024

The project, titled **Collision Insights Project**, involved the development of a sophisticated web application designed to streamline the collection, cleaning, analysis, and visualization of collision data. The primary objectives were to provide valuable insights that inform decision-making for various interested agencies, including traffic management authorities, urban planners, and safety regulators.

Key Components:

- **Data Acquisition**: The web application integrates seamlessly with multiple databases to gather comprehensive collision data from various sources. This includes real-time data from traffic sensors, historical accident records, and reports from law enforcement agencies.
- **Data Cleaning and Preparation**: A crucial step in the process involves rigorous data cleaning to ensure accuracy and consistency. This includes removing duplicates, handling missing values, and standardizing formats. By employing advanced data preprocessing techniques, the application ensures that the dataset is robust and reliable for subsequent analysis.

- **Data Analysis**: The application utilizes statistical methods and algorithms to analyze the cleaned data. This involves identifying patterns, trends, and correlations within the collision data, allowing for an in-depth understanding of factors contributing to accidents. Machine learning models may also be employed to predict future incidents based on historical data.
- **Interpretation and Insight Generation**: The analytical results are interpreted to extract meaningful insights that can guide decision-making. This could include identifying high-risk locations, understanding peak accident times, and recognizing common factors leading to collisions. These insights are crucial for agencies aiming to enhance road safety and implement targeted interventions.
- **Data Visualization**: A critical aspect of the project is the creation of intuitive and interactive visualizations. Utilizing tools like **Tableau** or **D3.js**, the application presents data in formats such as heat maps, bar charts, and trend graphs. These visualizations make complex data easily digestible, allowing stakeholders to quickly grasp key insights and patterns.
- **Decision-Making Support**: The final outputs of the project serve as a vital resource for various agencies involved in traffic safety and urban planning. By leveraging the insights gained, these organizations can make informed decisions about resource allocation, policy formulation, and strategic planning to enhance road safety and reduce collision rates.

Awards

Community Impact Award Apr 2024
National Transport and Safety Authority
Honored for contributions to improving public safety through data-driven insights shared with local government agencies.

References

Mrs. Rose Chibayi Ndula, *Head of IT department*, State Department for Culture the Arts and Heritage
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