Charles Werk

Data engineer | Software Engineer

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# Objective

Aspiring Data Engineer with a BS in Computer Science and a strong foundation in Python, Java, and data analytics. Passionate about leveraging advanced data management techniques to drive business intelligence, enhance decision-making, and contribute to the success of innovative projects. Eager to apply technical skills and a unique perspective to modern practices, facilitating the development of intelligent systems and sophisticated data solutions.

# Education

## University of Montana, Missoula, MT

* Major: BS in Computer Science, Concentration in Software Engineering, Expected 2024
* **Relevant Coursework:** Data Structures and Algorithms, Database Management, Big Data Analytics, Cloud Computing Essentials

## Aaniiih Nakoda College, Harlem, MT

Major: AS in Computer Information Systems, 2019

# Skills & abilities

* **Programming Languages**: Python, Java, HTML/CSS
* **Data Management**: SQL/NoSQL, Data Pipelines, ETL Processes
* **Analytics & Visualization**: NumPy, Pandas, Tableau
* **Development Tools**: Django, React Native, Android Studio
* **Cloud Platforms**: Familiarity with Azure, AWS basics
* **Collaboration & Communication**: Strong interpersonal skills, experienced in team projects and leadership roles.

# Professional Experience

## Retail Operations Internship, Caras Nursery and Landscaping, LLC

Jan 2024 – May 2024

**Implemented Thermal Printing Solutions:** Spearheaded the setup and integration of thermal printing solutions to automate the labeling process. This initiative reduced manual data entry errors and enhanced the accuracy of product identification across the store.

**Streamlined Product Labeling Process:** Developed and implemented an innovative labeling system for in-house products, significantly improving operational workflow. By automating the generation of labels for over 90% of previously unlabeled stock, the solution drastically reduced the time required for product processing and sales transactions. This enhancement led to a smoother checkout process, improved customer satisfaction, and increased sales throughput.

**Data Management and Inventory Control:** Leveraged database management skills to organize and streamline the SKU system. Created a more intuitive and efficient method for tracking and managing inventory, which facilitated quicker product access and improved the accuracy of inventory records.

## Natural Resource Management Laboratory Intern, University of Montana

**2022 – 2023**

* Developed a Virtual Reality fire simulation game using Unreal Engine 5, focusing on data-driven fire spread physics to aid first responders.
* Utilized Python for data analysis and modeling, enhancing the simulation's realism and educational value.

## Digital Marketing Intern, Montana High Tech Business Alliance, Missoula, MT

**2021 – 2022**

* Spearheaded a project to analyze website traffic and social media engagement using Google Analytics and social media tools, resulting in a 20% increase in user engagement.
* Improved the organization's digital footprint by developing and implementing content strategies based on data-driven insights.

# Projects

## Data Engineering Project, University of Montana

* **Objective:** Developed a machine learning clustering algorithm using Python, Pandas, and Scikit-Learn to uncover hidden patterns in large datasets, enhancing data-driven decision-making.
* **Implementation:** Executed data preprocessing, feature selection, and algorithm optimization to identify distinct clusters, revealing critical insights for strategic applications.
* **Outcome:** Achieved a robust categorization of data points, providing actionable intelligence that informed future strategies.

## Full Stack Development Capstone Project, University of Montana

* Objective: Designed and launched a React Native mobile stargazing app for the Institute of Tourism and Recreation Research (ITRR), improving access to tourism resources and engagement.
* Development: Conducted comprehensive stakeholder interviews for requirement gathering, implemented a user-centric design with Figma, and developed a scalable backend with Node.js and Google Firebase.
* Features & Impact: Introduced key features such as interactive maps and event calendars, leading to enhanced user experience and interaction.