Jean-Emmanuel Kouadio

Phone: 681-283-0298 | Email: emmanuelkj5@gmail.com | LinkedIn | Portfolio | Shepherdstown, WV

PROFESSIONAL SUMMARY

Dedicated and motivated Data Scientist with over 1.5 years of experience in deep learning, computer vision, and machine learning. Eager to apply my proficiency in deep learning and machine learning algorithms in a professional environment as a Data Science Intern.

EDUCATION

Shepherd University   Jan 2022 - Dec 2024 (Expected)
Master of Science in Data Analytics & Information Systems   *Shepherdstown, WV*
- Relevant courses: Statistical Analysis, Machine Learning, Database Management Systems.

Shepherd University   Aug 2017 – Dec 2021 (Completed)
Bachelor of Science in Computer Engineering   *Shepherdstown, WV*
- Relevant courses: Data Structures and Algorithms, Programming, Probability and Statistics.

WORK EXPERIENCE

Shepherd University Wellness Center   Sep 2022 - Present
Flex Manager   *Shepherdstown, WV*
- Managing a team of 3 employees, ensuring smooth daily facility operations, equipment readiness, and top-notch customer service for 2800+ members.
- Demonstrating strong problem-solving skills in operations, resource management, and staff coordination.

West Virginia INBRE   Dec 2018 - Jul 2021
Research Assistant   *Shepherdstown, WV*
- Conducted cancer therapy research through rigorous analysis of tumor growth data, influencing treatment strategies.
- Applied mathematical modeling to quantify therapy impacts on tumor progression, driving data-informed clinical insights.
- Presented research outcomes at scientific conferences, reinforcing a reputation for specialized knowledge in oncology.

PROJECTS

Facial Emotion Recognition System [Link] (Python, Git)
- Develop an AI system to accurately discern and mirror user emotions, enhancing digital marketing and mental health tools.
- Processed a dataset of over 25,000 images, applying data augmentation and preprocessing to boost model efficacy.
- Trained a **CNN** model and a **VGG16** model, employing transfer learning techniques for initial benchmarking.
- The **VGG16** model accuracy score was very low (i.e., $< 45\%$) so I fine-tuned the model which improved the model accuracy with a score of about 60%.
- Achieved comparable performance with the CNN model and successfully tested both models on new, unseen images.

Cancer Diagnosis Web Application [Link] (Python, Flask, AWS, Git)
- Developed a machine learning-powered web application enabling physicians to diagnose cancer types with 97% accuracy.
- Analyzed and processed a dataset of 500+ instances and 30 features and built the model using **Logistic Regression**.
- Engineered a user-friendly interface with Flask, complemented by HTML and CSS for intuitive navigation by healthcare professionals.
- Deployed code with comprehensive unit tests on AWS EC2, enabling real-time analysis and KPI tracking.

Smart Recycle Bin – Waste Management Solution [Link] (Arduino/C++, PHP, Data Visualization)
- Implemented an **ESP32** microcontroller-based system for real-time monitoring of waste level using **Arduino/C++**.
- Developed a **PHP** script for efficient data processing and storage, demonstrating backend development proficiency.
- Utilized **Highcharts** for data visualization, effectively translating sensor data into actionable environmental insights.
- Analyzed data to forecast waste capacity, employing data science techniques for ecological efficiency.

SKILLS

Languages: Python, R, SQL, JavaScript, HTML, CSS, PHP, Arduino/C++
Libraries: Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, TensorFlow, Keras
Tools: Tableau, Excel, Jupyter, Flask, AWS EC2, Git, SAS, Casual Inference, A/B testing
Machine Learning algorithms: Linear Regression, Logistic Regression, Decision Tree, Random Forest, XGBoost
Deep Learning & Computer Vision: ANN, CNN, RNN, OpenCV, Image Classification, Object Detection
Soft Skills: Communication, Teamwork, Problem Solving, Critical Thinking, Time Management, Adaptability