PRINCE AGYEI TUFFOUR

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EDUCATION

Oregon State University - Corvallis, Oregon, USA   **Graduating Fall 2023**
Major: Applied Mathematics, MS   **Awards:** Provost Scholar, 2021   **GPA:** 3.38
Relevant Coursework: Data Science, Programming and Data Structures, Linear Algebra, Applied Machine Learning, Probability, Numerical Analysis, Methods and Models of Applied Mathematics, Uncertainty Quantification, Simple Random Walks, Quantum Computing

Kwame Nkrumah University of Science and Technology - Kumasi, Ghana   **Sept 2016 - May 2020**
Major: Mathematics, BS, magna cum laude, Top 1%   **Awards:** Best Student, Department of Mathematics (2017, 2018, 2019, 2020)
Relevant Coursework: Discrete Mathematics, Scientific Computing, Optimization, Statistics, Introduction to Computer Programming, Regression Analysis, Probability, Calculus, Functional Analysis, Topology
Online Certifications: J.P. Morgan Software Engineering Virtual Experience Program, Machine Learning Specialization (Coursera), Google Data Analytics Professional Certificate*, Deep Learning Specialization (Coursera)   **(*= In progress)**

SKILLS

Programming Languages: Python, JavaScript, MATLAB, R, SQL, C, TypeScript
Tools: TensorFlow, PyTorch, Keras, Scikit-learn, Docker, HTML, CSS, Git, React, RapidAPI, Flask, Django, Node.js, Agile, AWS, Postman, Selenium, BeautifulSoup, FastAPI, RESTful API, Data Visualization, Data Analysis, jQuery, Netlify
Concepts: Cross-functional teams, IP Solutions, Software Development, Data Science Design Principles

EXPERIENCE

Oregon State University, Graduate Teaching Assistant | Mathematics, Programming   **Sept 2021 - Present**
- Instructed 230+ students in Calculus, Algebra, and Analysis, and 50+ students in intro programming courses.
- Gained classroom management and communication skills explaining complex data science concepts during programming classes.
- Provided individual support to help students master challenging material.

The AFEX Hub, Database Management Specialist   **June 2016 - July 2021**
- Managed database administration activities and played a pivotal role in software development initiatives, aligning with the company's IP strategies.
- Led a team of 2 database administrators and was responsible for capacity planning, backup and recovery, disaster recovery planning, and ensuring high availability and performance of critical databases.
- Designed and implemented new database architectures, data models, and schemas to support application releases and new development projects. Migrated legacy systems to new database platforms.
- Provided expert-level SQL query tuning, analysis, and troubleshooting to resolve complex performance issues. Reduced query run times by over 50% through indexing improvements and normalization.

FLEEF Ghana, Software Developer | Web Dev Team   **Sept 2018 - Feb 2019**
- Collaborated with engineers to design and implement a responsive website, prioritizing user experience and incorporating latest design principles.
- Overcame challenges of setting up Flask API and integrating Jinja templates into HTML files, resulting in a fully functional website with about 8 pages.
- Boosted organization engagement by 45% through improved accessibility and UX.

PROJECTS

YouTube Clone Web App | HTML, CSS, React   **https://github.com/nanaagyei/youtube-clone**
- Designed and developed an interactive YouTube clone web app with ReactJS emphasizing a user-centric experience that allows users to watch and engage with videos.
- Built a responsive cross-functional UI with video playback features, leveraging the power of RapidAPI for robust search functionality.
- Demonstrated expertise in software development by integrating frontend React with external YouTube APIs and focusing on data-driven user experiences.

Anime Recommendation System | HTML, CSS, Javascript, Python, Flask   **https://github.com/nanaagyei/recommendationsystem**
- Developed a data science-powered web application utilizing both content-based and collaborative filtering algorithms to offer accurate anime recommendations.
- Employed HTML and other web technologies to design a user-friendly interface that streamlines the discovery process for new anime.
- Highlighted the application's software development skills by integrating machine learning models and tailoring algorithms based on user feedback.

100 Days of Python Programming & Projects | Python   **https://github.com/nanaagyei/100daysOfCode**

- Completed an intensive 100-day development challenge, independently constructing over 15 projects that utilized various aspects of data science and management.
- Gained comprehensive experience in software development techniques, including Flask framework, SQLite/MySQL databases, and various APIs.
- Applied data science principles, utilizing Pandas, Matplotlib, and Scikit-Learn, to analyze a housing dataset predicting prices and addressing real-world challenges.

GPU Memory Profiler | Python, Tensorflow, PyTorch   **https://github.com/Silas-Asamoah/gpu-memory-profiler**

- Collaborated in the design and development of GPU Memory Profiler, an open-source library tailored for monitoring GPU memory usage in leading frameworks like TensorFlow and PyTorch.
- Showcased cross-functional team skills, contributing to the core memory tracking functionality and assisting in the creation of memory usage visualization tools and profiling reports.
- Worked jointly on the creation of memory usage visualization tools, profiling reports, and debugging integrations.