Nathan Kuissi

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EDUCATION

University of Waterloo Waterloo, ON
Data Science *Jun 2027*

Skills: C/C++,Object-Oriented, Algorithms, Debugging, Shell Script, software development, Testing, GDB, Valgrind, Git, Linux Command, Analysis of algorithms, R

EXPERIENCE

Volunteer Developer June 2023 – Dec 2023
Ivy *London, UK*

- Streamlined codebase by refactoring existing front-end functions, resulting in an overall improvement of performance by 15% and reducing memory usage by 20%
- Researched and integrated front-end functions to replicate the functionality of popular libraries such as TensorFlow and PyTorch, resulting in a 10% decrease in development time for complex machine learning algorithms.
- Tested and debugged the implementation of functions to ensure compatibility with popular libraries such as numpy, jax, pytorch, and tensorflow, resulting in a reduction of runtime errors by 40%.
- Collaborated with team members to identify and resolve system bugs, resulting in a 10% increase in workflow efficiency.

Student Developer Oct 2022 – Apr 2023
Waterloo Aerial Robotics Group *Waterloo, ON*

- Develop efficient algorithms to reduce shortest path search time by 20%, resulting in a 50% increase in overall system performance.
- Identified & implemented best practices on algorithm design that increased the accuracy of the path-optimization process by up to 50%.
- Supervised automated test cases to evaluate core functions, ensuring performance & quality metrics compliance.

PROJECTS

Image Search Engine | *Python, Git, Github Actions, MongoDB, Torch* Aug 2023 – Oct 2023

- Created Feature Representation of Images using a pretrainned CNN (convolutional neural network)
- Using KNN (K nearest neighbors) to find the most similar images to any input given by a user
- Read research on the most up-to-date methods used on CBIR (Content Based image Retrieval)
- Tested the accuracy of the model using the mAP (mean average precision)

Human Emotion Classifier | *TensorFlow, Git, Python* June 2023 – October 2023

- Given an input image model knows what emotion is felt by the human
- Implemented various architectures such as Vits(Vision Transformers), Resnet 50, VGG to find out which one did best at the task
- Fine-tuned Existing model to improve the accuracy of the dataset
- Used different Data Augmentation Strategies to create a more robust mode

SKILLS

Soft skills: Communication, Adaptability, Storytelling, Critical Thinking, Time management, Teamwork, Proactive problem-solving, Attention to detail
Languages: Python, C/C++, SQL (MYSQL, MSSQL), R, HTML/CSS
Data Analysis: Pandas, Matplotlib, Tableau, Power BI, Excel, Tidyverse
Machine Libraries and Deep learning: pandas, Numpy, Tensorflow, PyTorch, scikit-learn,

CERTIFICATIONS

Google Data Analytics Professional Certificate: R, Tableau, MySQL, Data Clean, Data Validation, MS Excel, Business Analysis, Data Management, Data Analysis, Communication, Statistical Programming
Meta Advanced Mysql Topics: MySql Trigger, Database optimization, Created Functions, Stored Procedures