Minh Le

(319) 486-3029 | lequ02@luther.edu

Education

Luther College
Bachelor in Computer Science and Data Science *GPA: 3.9*

Experience

Research Assistant
Luther College

- Set up and manage GPU packages (CUDA, cuDNN, etc.) & libraries for CS/DS department server
- Studied and implemented state-of-the-art (SOTA) techniques such as GANs, CTGAN, Bayesian Networks to develop a comprehensive understanding of Data Augmentation (DA)
- Collaborated with Professor to engineer and implement DA algorithm 10% better than current SOTA techniques

Software Engineer Intern
CARA VN

- Set up automated parking system to accommodate 200+ vehicles daily
- Built Object Detection and Optical Character Recognition model to extract license plate data with 96% accuracy.
- Collected and synthesized a 5000+ images dataset; used pre-train techniques such as mosaic, brightness & exposure adjustment, grayscaling for better inference accuracy
- Developed a fully functional user interface application using Reactjs, Onnx, Nodejs, HTML, CSS, and OpenCV
- Integrated a digital wallet payment system for a seamless user experience

Projects

Shepherd - Livestock AI monitoring | *YOLOv8, Roboflow, React*

- Won 1st place in Midwest region AI Challenge. AI model's accuracy and speed outperformed commercial products
- Developed an AI solution for livestock movement tracking and health monitoring via camera livestream
- Annotated 14,000 labels & Implemented data augmentation techniques to x4 dataset
- Wrote custom tracking algorithm with accuracy up to 99%, outperformed YOLOv8 default tracking algorithm
- Engineered distance-calculating algorithm converting 2D spatial information to 3D to monitor livestock health
- Built React web app for farmers to easily interact with the AI

Luther College Student ID | *Python, React, FastAPI, OpenCV, pytest*

- Developed a mobile application for facilities services such as library and cafeteria for 2000+ users
- Set up SSH connection for local database testing and back-end deployment on Ubuntu server
- Implemented features for automated cafeteria access using QR code detection and Facial Recognition
- Integrated a library checkout feature into the existing system, enhancing user convenience
- Conducted CI/CD to detect and patch potential security vulnerability and error

COVID-19 Data Visualization | *Plotly, Matplotlib, Scikit-learn, Statsmodel, Pandas*

- Featured on Columbia University's website for actionable insights for future pandemics
- Applied statistical analyses to identify patterns and insights from a large dataset of 700,000+ entries
- Applied time series forecasting to predict future progression of the pandemic and efficiency of different policies

Flower Classifier | *Tensorflow, Keras, HuggingFace, Gradio*

- Developed models using CNN, VGG16/19, and Fine-grained Classification to classify 102 types of flowers
- Applied Machine Learning/Deep Learning techniques to achieve accuracy of 98%
- Deployed a user-friendly Gradio interactive web interface for public use on HuggingFace

Technical Skills

Languages: Python, C/C++, JavaScript, HTML/CSS, SQL
Frameworks: React, Node.js, FastAPI
Libraries: pandas, NumPy, pgmpy, SDV, Matplotlib, Tensorflow, Keras, YOLO, pytorch, OpenCV, Scikit-learn, Dash
DevTools: VSCode, Git, GitHub, Kaggle, Google Colab, CLI/Powershell
Relavant Courses: Math & Coding for AI, Machine Learning for AI, Statistics, Data Analysis & Visualization, Algorithm & Data Structures, Applied Machine Learning, Deep Learning