TUNG DINH

Junior Computer Vision Engineer | Python, OpenCV, PyTorch

tsdinh442@gmail.com | (682) 240 - 1753 | Houston, TX

github.com/tsdinh442 | Linkedin.com/in/tung-dinh/ | youtube.com/@TungDinh_CV

SUMMARY

Computer vision engineer with hands-on experience in developing projects specializing in object detection and image classification. Proficient in various machine learning algorithms and possessing a keen interest in the intersection of technology, design, and scientific research. Pursuing a junior computer vision engineer role to channel my technical expertise into solving real-world challenges while thriving in a collaborative setting.

SKILLS

- **Python** with a strong background in object-oriented programming.
- **OpenCV** and techniques in image processing and analysis.
- Visualizing **LiDAR data** using Open3D.
- **Pytorch, Tensorflow,** and developing machine learning and deep learning models.
- **Data visualization and analysis** using Pandas, Matplotlib, and Seaborn.
- **Mathematical background** with a particular emphasis on key concepts in **linear algebra**.
- Demonstrated expertise in critical thinking and **creative problem-solving.**

PROJECTS

11/2023 • **Car Counter | Object Detection | link**
- Trained and fine-tuned the YOLO model on custom dataset to count the number of parked cars from drone images of parking lots.
- Implemented the 'drawing polygons' function using OpenCV to target only the regions of interest.

05/2023 • **Parking Occupancy Analysis | Image Classification | link**
- Tackled the challenge of distinguishing parked and moving vehicles by applying a binary mask on the original image, extracting individual parking stall using OpenCV.
- Employed VGG16 for feature extraction and trained an XGBoost model to classify parking stall occupancy.

WORK HISTORY

06/2022 - current

• **Computational Programmer Intern**
Walter P Moore Engineers and Consultants - Houston, TX
- **Developed a parking layout generator using Python** that processes multiple inputs to produce complex parking layouts, detailed 3D models of garage structures, and accurate parking space counts.
- Assisted parking management professionals in attaining comprehensive insights into data trends by utilizing Matplotlib and Seaborn to generate data visualizations.
- **Built a diverse parking stall dataset by using OpenCV** to extract spaces from aerial images, covering various parking scenarios.
- **Collaborated with the cross-functional team of engineers and designers** to gather information on parking requirements and structural frameworks in varied contexts.
- Provided individual support and **conducted team presentations** to showcase the tool's features and capabilities.

EDUCATION AND PROFESSIONAL DEVELOPMENT

08/2023 • **Bachelor of Science - Computer Science.**
University of Houston - Houston, Texas

05/2023 • **Coursework: Machine Learning with Python, from Linear Models to Deep Learning**
MITx (Massachusetts Institute of Technology online learning platform)