Quinn Meyer

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EXPERIENCE

Aptiv Troy, MI
Data Scientist - Camera Systems 2018 – 2022

- Operated as a full-stack software engineer developing image processing applications to measure image quality metrics such as focus score, SNR, demosaicing, color calibration, dark noise, etc.
- Used K-Means clustering on data from the DAT2.0 camera module to improve standard deviation of MTF measurements in a validation environment by 5%
- Led correlation studies of focus metrics between validation and manufacturing tests to ensure lean manufacturing and customer requirements to reduce scrap by 10%
- Lead developer for novel camera calibration software in Python using a newly implemented distortion model at a cycle time of under 60 seconds per unit
- Developed object detection software using Tensorflow to detect and segment camera targets in highly distorted raw images to automate preexisting manual image preprocessing software at 99% accuracy
- Developed a metrological testing algorithm to assess camera model accuracy on the order of 2 millimeters at 20 meters range for global verification of Aptiv's manufacturing process
- Expert in perspective geometry and responsible for correlation studies of calibration accuracies between five different methodologies of suppliers and customers
- Quantified image sensor perceptiveness using Fourier signal processing techniques to objectively assess sensor MTF to successfully correlate to module MTF
- Developed a Python script to interface with Solidworks for the design engineers to ensure camera field of view and boresight error fits within dimensions of a bracket
- Collaborated to develop a custom camera alignment machine and software to align cameras using a six-axis robot, intermediate optic, active adhesive curing, and optimization software based on focus scores
- Responsible for writing scripts that clean unstructured tabular data and developing relational databases
- Experienced in technical writing, data visualization, creating PowerPoints, and presenting to customers

Rolls-Royce West Lafayette, IN
Capstone Project Spring 2018

- Worked with a small team of engineers to design, source, fabricate, code, and launch a robust automated test fixture for simulating the forces distributed onto a jet turbine in under six months
- Deployed the project 25 percent under budget and ahead of scheduling with the text fixture currently being used in the Rolls-Royce research and development facility in West Lafayette

EDUCATION

Master of Science in Data Analytics……December 2022
Western Governor's University, Salt Lake City, UT

Bachelor of Science in Mechanical Engineering…… 2018
Purdue University, West Lafayette, IN

SKILLS

Programming Languages: Python, SQL, MATLAB, HTML
Python Packages: Jupyter, Numpy, Pandas, Scikit-Learn, OpenCV, Pillow, Plotly, Tensorflow, Keras
Tools & Methodologies: Tableau, Git, Jira, ETL, Machine Learning, Deep Learning, Computer Vision, Signal Processing, Database Design, Data Visualization, Data Analysis, Microsoft Office, Technical Writing