

# Quinn Meyer

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## EXPERIENCE

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**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 test fixture currently being used in the Rolls-Royce research and development facility in West Lafayette

## EDUCATION

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**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

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**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