Quinn Meyer

[Portfolio](#) || [LinkedIn](#) || Saginaw, MI

EDUCATION

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

Bachelor of Science in Mechanical Engineering……………………………………………………...2014-2018
Purdue University, West Lafayette, IN

EXPERIENCE

Sustainment   Austin, TX (Remote)
Data Scientist – Computer Vision   July 2023 – Present

- Automating the sourcing of small-to-mid-sized manufacturers using computer vision - stay tuned!

Aptiv   Troy, MI (Hybrid)
Data Scientist - Camera Systems   2018 – July 2023

- Technical lead for ad hoc data analysis using unstructured camera data in Python, extracting data-driven insights, developing visualizations, and presenting results to upper management and customers.
- Full-stack software engineer developing image processing applications to measure image quality metrics such as focus score, SNR, demosaicing, color calibration, dark noise, etc. for manufacturing.
- Analyzing test and manufacturing data to validate new camera testing methods that reduce space on the factory floor by 90% for end of line quality tests.
- Developing 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.
- Created new way to quantify image sensor performance using sensor data, leveraging Fourier signal processing, to assist analyzing camera module focus score by isolating sensor perceptive performance.
- Acting as a project manager and liaison with customers, gathering requirements, translating business needs into technical requirements, and developing presentations for technical / non-technical stakeholders.

High-Accuracy Geometric Camera Calibration
Showcase Portfolio Project | [Efovee.com](#)   2022 - Present

As a data scientist working in the camera industry, I have a great appreciation for the mathematics behind the analysis and application of cameras. Here, I use computer vision techniques to geometrically calibrate cameras exceeding industry standard solutions such as Imatest or Axios 3D by all metrics.

- Creating unique checkerboard detection algorithm from scratch that can detect checkerboard corners without any user inputs in highly distorted images down to a checker size of 10 pixels.
- Developing novel camera calibration software with baseline triangulation error of less than 0.06 degrees for low-cost ($20) embedded Arduino cameras, achieving automotive accuracy requirements by all metrics.
- Reducing the cost of the calibration setup from tens of thousands of dollars to a fifty-dollar checkerboard.
- Calibrates a camera in less than 8 seconds, around two times faster than industry solutions.
- Using git and github for proper version control and object-oriented programming in Python.
- Developing an example business website in HTML and CSS showcasing the project as well as featuring examples of my data visualization and presentation capabilities.

SKILLS

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