

Michael Kelbert

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Machine Learning Engineer | Quality Analyst | Python Developer

Motivated professional transitioning into Machine Learning engineering with hands-on experience in Python, software QA, and machine learning.. Currently pursuing a Master's in AI. Proven ability to collaborate with development teams, solve problems, and build scalable tools through real-world coding projects.

Technical Skill

Languages: Python, Java, SQL

Tools: Git, Docker, Jira, Jupyter, VS Code

Libraries/Frameworks: pandas, NumPy, scikit-learn, TensorFlow, Pytorch, Matplotlib, OpenCV

Concepts: Data Structures, Algorithms, REST APIs, OOP, Software Testing

Projects

Real Time Emotion Recognition – Python, pandas, scikit-learn, Tensorflow, OpenCV

- Built emotion recognition system able to take live video feed as input and overlay matching training labels onto camera feed.
- Trained a convolutional neural network (CNN) using Keras to classify facial expressions and optimized model performance for accurate live inference.

Hand Tracking mirrored to Virtual Hand – Python, Mediapipe, OpenCV, MuJoCo

- Used handtracking from Mediapipe captured through OpenCV
- Then mirrored captured hand tracking to Shadow hand model within MuJoCo

Professional Experience

Lead Quality Analyst – **Auto-Owners Insurance Co.** | Lansing, MI | Jan 2024 – Present

- Lead QA for Personal Property Projects team, ensuring defect-free releases via exploratory and regression testing.
- Validated backend and UI features; coordinated with developers, stakeholders, and vendors for successful releases.
- Managed bug tickets, sprint boards, and release cycles using Jira.

Student Researcher – **Michigan State University** | East Lansing, MI | Sep 2021 – Sep 2022

- Collected and analyzed plant infection data for research under PhD supervision.
- Improved data pipeline and reported results under strict academic deadlines.

Education

- M.S. in Artificial Intelligence (In Progress)
University of Michigan-Flint | Expected May 2027
- B.S. in Neuroscience | Minor: Global Public Health and Epidemiology
Michigan State University | May 2023

Certifications

- Foundations of Data Structures – University of Michigan-Flint
- Foundations of Algorithms – University of Michigan-Flint