# **Drew Meyer**

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## Skills

Languages: Python, C, C++, JavaScript, HTML, CSS, SQL

Technologies & Tools: Git, AWS, EC2, Docker, NodeJS, ReactJS, LangChain, Chainlit, NumPy, Pandas

# **Projects**

#### Full Stack Development: Dog Breed Classifier

Jan 2024 - Present

- Used an open-source image dataset of 120 dog breeds to train a multiclass classifier convolutional neural network and handled data preprocessing to ensure quality and usability of the train and test sets. The model achieved 90% accuracy after training.
- Developed a full-stack application by designing a front-end user interface with a back-end server and API endpoint. Using an uploaded image of a dog, the app communicates with the classifier for inference to accurately predict the dog's breed.
- Python, TensorFlow, Tensorflow.js, Node.js, React.js, API integration

#### Generative AI: Custom QnA Chatbot

September 2023

- Built a question answering chatbot using the OpenAl API and LangChain, while handling user sessions and frontend display with Chainlit.
- By uploading a PDF, the application would obtain a user prompt and pass it to GPT-3.5 which would perform retrieval augmented generation (RAG) to simulate the user 'talking' to their own documents/data.
- Python, OpenAl API, LangChain, Chainlit

#### Computer Vision: MNIST Handwritten Digit Classifier

August 2023

- Used the MNIST handwritten digit dataset, developed a multiclass classifier neural network to predict human handwritten numbers with an initial 90% accuracy.
- Conducted research on existing model architectures which were highly precise on image data to develop a convolutional neural network, which improved from a 90% initial accuracy to 99% accuracy, matching human baseline performance.
- Python, TensorFlow, NumPy, Pandas

# Education

#### The University of Kansas - Lawrence, KS

Aug 2021 - May 2025

B.S. in Computer Science with a Business Minor

CGPA: 3.57 / 4.00

- Relevant Coursework: Programming Fundamentals, Object Oriented Programming, Data Structures and Algorithms, Calculus, Discrete Mathematics, Linear Algebra, Embedded Systems, Software Engineering
- Involvement: KU AI Organization, Software Engineering Club, HackKU, Hack Midwest

# Internships / Fellowships

### Undergraduate Research Fellowship, University of Kansas - Lawrence, KS

Spring 2024 - Present

- Conducting research and development of machine learning and AI models, specializing in computer vision.
- Working closely with a faculty mentor and conducting requirement and specification solicitation with partner organizations.

#### Engineer Consulting Intern, Blanchard AE Group - Lawrence, KS

June 2022 - August 2022

- Worked directly with the Principal Engineer, Project Manager, and Project Engineers and demonstrated excellent verbal and written communication skills to perform daily responsibilities.
- Created technical diagrams with AutoCAD which were shipped and delivered in client build plans.

# **Awards and Certificates**

#### Machine Learning Specialization, Coursera and Stanford University

May 2023 - August 2023

• Built a solid foundation of supervised learning, unsupervised learning, and advanced learning algorithms (deep learning and reinforcement learning).