

Miles Koehnemann

602-680-0767 | mileskoehnemann@gmail.com | [linkedin.com/in/mileskoehnemann](https://www.linkedin.com/in/mileskoehnemann)

EDUCATION

Arizona State University

Masters in Computer Science

Tempe, AZ

Aug. 2024 – May 2025

Arizona State University

Bachelor of Science in Computer Science (Magna Cum Laude)

Tempe, AZ

Aug. 2020 – May 2024

EXPERIENCE

Software Engineering Intern

General Dynamics Mission Systems

May 2023 – Feb. 2024

Tempe, AZ

- Collaborated with IT to secure our team's enclave by hardening both router and Linux systems, ensuring controlled use of specific ports, commands, and applications
- Developed an automated configuration management system using Ansible, reducing setup time from 6 hours to 15 minutes by automating configuration scripts and processes.
- Assisted in the development and presentation of technical demonstrations to prospective clients

PROJECTS

Mars Landmark Classification | *Python, Sklearn, Numpy, Pandas, Tensorflow, Keras*

- Created an automated system using convolutional neural networks to accurately identify and classify geological landmarks on Mars from high-resolution satellite imagery, improving efficiency over manual annotation.
- Processed and augmented a dataset of 73,031 images from the Mars Reconnaissance Orbiter's HiRISE camera, including six different image transformations to enhance model training.
- Attained an overall classification accuracy of 83.06% on the test set, with exceptional performance on distinct classes like "bright dune" and "crater," demonstrating the model's effectiveness in identifying diverse Martian surface features.
- Explored methods to mitigate class imbalance, including data augmentation and class re-balancing, and proposed improvements such as transfer learning and attention mechanisms to enhance model performance and generalization.

Restaurant Visual Analysis | *Python, JavaScript, HTML, CSS, D3.js, Pandas*

- Worked effectively within a multidisciplinary team to plan, create, and present a comprehensive visualization tool adapted for restaurant destination analysis, utilizing user-generated content to provide insights into customer experiences and sentiments.
- Contributed to the development of sentiment matrix, radar charts, time-series charts, cognitive view word clouds, and UGC view to visualize emotional and cognitive elements from restaurant reviews.
- Assisted in preprocessing and extracting key attributes from a large dataset of restaurant reviews using NLP techniques, enhancing the quality and relevance of data for visualizations.

Asset Tracking Tool | *Java Script, HTML, CSS, MySQL, Node.js, React*

- Led the development and implementation of a comprehensive asset tracking tool using React and SQL, enhancing organizational efficiency through features such as intuitive user interface, dynamic reporting, and seamless integration with existing systems.
- Conducted thorough UX, integration, performance, and accessibility testing to ensure optimal functionality and user experience. Produced comprehensive user and technical documentation, ensuring easy configuration, installation, and future maintenance.
- Coordinated with a multidisciplinary team using Agile methodologies, facilitated regular progress meetings, and maintained a shared project board to manage tasks and ensure alignment with sponsor requirements, culminating in a fully deployable and tested product.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL, JavaScript, HTML, CSS, YAML, Swift

Frameworks: React, Node.js, Ansible

Developer Tools: Git, Docker, VS Code, Visual Studio, IntelliJ, Eclipse, Confluence, Jira

Libraries: Pandas, NumPy, Matplotlib, Selenium, Scikit-learn, D3.js, PyTorch