Taylor Clingenpeel

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Top Skills

- **Languages** – Python, Java, C++
- **Technical** – Computer Vision, Machine Learning, Image Processing, TensorFlow, Linux, Git

Education

University of South Carolina, College of Engineering, Columbia, SC
- Bachelor of Science in Computer Engineering (2019)

Work Experience

Krumware Charlotte, NC (remote) **09/2022 – 04/2023**

Software Engineer
- Designed UML diagrams to enhance the functionality of a legacy web application for clients.
- Streamlined API development by documenting over 100 Swagger endpoints, ensuring clarity and ease of use.
- Automated manual tasks through the development of Python scripts, resulting in improved efficiency and accuracy.
- Collaborated on architectural changes to optimize API development practices, leading to enhanced performance and maintainability.
- Managed and optimized SQL databases for both development and production environments, ensuring data integrity and smooth operation.

University of South Carolina Columbia, SC **06/2018 – 05/2022**

Research Associate 05/2019 – 05/2022
- Continued work on 3013 Corrosion grant now as a full employee of the College of Engineering and Computing.
- Developed machine learning models and supporting tools to aid in sourcing image data, while enhancing the accuracy and efficiency of neural network-based research, using Pytorch and MATLAB.
- Designed a GUI application to process image data and give users a wide range of statistical and image manipulation methods.
- Enhanced object detection accuracy of neural networks by ~30%, and expanding its applications.
- Successfully achieved grant objectives and facilitated the team's initiation of publications.

Undergraduate Research Assistant 06/2018 – 05/2019
- Collaborated with a University Professor on 3013 Corrosion grant awarded by the DoE.
- Utilized PyTorch for scripting and developing machine learning models, enhancing the accuracy and efficiency of neural network-based research.
- Reads and parses large microscopy image datasets of undocumented filetypes.
- Tests and manipulates neural networks for accuracy improvement, maintains project library in Python.
- Created a GUI application that trains, tests, and validates neural networks on microscopy datasets.