Aaditree Jaisswal

(aaditree.github.io/portfolio | linkedin.com/in/aaditree-jaisswal | github.com/aaditree) |
aaditreejaisswal06@gmail.com | (413) 437-6757 | Amherst, MA

Education

University of Massachusetts Amherst — Expected Graduation May 2025
Master of Science in Computer Science — GPA: 3.8/4.0

MKSSS's Cummins College of Engineering for Women, Pune — Graduation Date: July 2021
Bachelors of Technology in Computer Engineering

Experience

Advisor360 - Systems Engineer *(Python, Ansible)* — Weston, MA | June 2024–Aug 2024

- Developed automated pipelines for Linux vulnerability assessment, integrating Shell scripts with custom dashboards for real-time security insights; improved remediation workflows and reduced issue resolution time by 20%.
- Automated the decommissioning of 20+ non-production Linux servers using Ansible, reducing manual overhead and accelerating incident resolution; improved system uptime and infrastructure resource management.

Cisco Systems - Software Engineer II *(Angular, Python, Cypress)* — Bengaluru, India | Aug 2021–July 2023

- Architected and implemented Angular-based UI modules for customer asset and telemetry insights, scaling to 10K+ enterprise users.
- Drove cross-team initiatives to enhance telemetry ingestion pipelines, reducing latency and improving analytics efficiency, demonstrating a bias for action and delivering measurable results.
- Drove UI design strategies for administrative sections, improving usability and data management capabilities, which enhanced productivity and user satisfaction among enterprise clients.

Technical Projects

Unsupervised Domain Adaptation to Classify Unlabeled Target Domain Data | Python

- Built and fine-tuned unsupervised domain adaptation models on Office-Home and Office-31 datasets using ResNet-50 as the feature extractor; achieved 93.13% accuracy, outperforming baseline transfer learning approaches
- Engineered the training pipeline with custom loss functions and augmentation techniques to align source and target distributions, improving cross-domain generalization.
- Optimized model inference and pre-processing pipeline, reducing overall latency by 20% and enabling scalable batch evaluation on unseen target domains.

Ummeed | *Demo Video* | *Github* | Python, Django

- Designed and built a Django-based web platform to raise awareness of global humanitarian issues through real-time communication and educational content.
- Integrated NLP modules for keyword extraction and document similarity using NLTK and TF-IDF, enabling dynamic clustering of news and social feeds.
- Implemented interactive geospatial visualizations with Google Maps API and GeoPy, allowing users to explore issue-specific events across regions.
- Secured user flows with Firebase Authentication and personalized content delivery based on location.

Research & Publications

Mathematical Expressions in Software Engineering Artifacts | *Publication*

- Developed a dataset and tool to discern mathematical expressions (ME) to advance and ease research in the MEs within bug reports.

Classification of Handwritten Indic scripts using Deep Learning | *Publication*

- Employed a deep learning approach to proficiently classify and identify twelve handwritten Indic script languages.

Effect of Hyperparameters on Backpropagation | *Publication*

- Investigated the impact of various hyperparameters on the backpropagation process, contributing to a deeper understanding of their influence.

Skills

Programming Languages: Python, Java, R, TypeScript, JavaScript, C++, HTML, CSS
Technologies: Flask, Angular, TensorFlow, PyTorch, Django, Bootstrap, Node.js, Ansible, Git, Linux Shell Scripting, Cypress, Android, PostgreSQL, MySQL, SQLite, Elasticsearch, Tableau, GeoPy

Achievements

- Cisco MVP Peer Award for collaboration and innovation on projects impacting 50K+ customers.
- Local People's Choice Winner – NASA International Space Apps Challenge 2020
- Led sessions as Google DSC Lead and tutored underprivileged students.