Jocelyn D.

Computer Scientist



Education

2023–2025 Master of Science in Computer Science, Florida International University

Relevant Courses: Advanced Topics in Machine Learning, Advanced Computer Graphics, Applied Parallel Computing, Software Engineering

2019–2023 Bachelor of Arts in English w/ Minor in Computer Science, University of Florida

Master Thesis

title Comparative Explainable Methods For Generalized AI Art Attribution

description Addresses the challenges of AI art by developing a detection system capable of identifying art generated from models such as Stable Diffusion, MidJourney, and DALL-E with explainability.

Experience

Research

Aug 2024- Graduate Research Assistant, Florida International University, Miami, FL

Present, Leading an AFRL-Sponsored Project on Formal Computing Methods and Cybersecurity.

- O Developed a data generation framework using C++ to enable multi-format compatibility, addressing complex data processing needs and facilitating more scalable solutions.
- O Designed a specialized data parser transforming file formats into optimized representations, enhancing processing efficiency for large datasets and complex computations.
- Mentored junior researchers through providing technical guidance and collaborative problem-solving on compiler optimization techniques.
- O Delivered monthly presentations to AFRL stakeholders, providing updates on project milestones, summarizing technical challenges, and suggesting actionable steps to drive project advancement.

Feb Graduate Research Assistant, Florida International University, Miami, FL

2024.

- 2024–May O Led a 5-member team investigating copyright violations in Al-generated art, analyzing datasets and developing detection methods to benchmark compliance issues.
 - O Designed, implemented, and trained a neural network in PyTorch on a dataset of 180,000+ images to attribute AI vs. human-generated art, achieving a 92% accuracy rate in detection.
 - O Proofread 2 research publications on Al-driven solutions, improving clarity and language to support submission to leading conferences.

Professional

May Enterprise Architect Intern, NextEra Energy Resources, Juno Beach, FL,

2024,

- 2024—Aug O Created a Python-based revision tool in an agile framework, automating report delivery and slashing writing time by 30 minutes on average.
 - \circ Drove the \$2M Digital Sherpa project integration via system design reviews with 10+ software and enterprise architects.
 - O Designed an AI revision framework with XML, cutting report approval time by 3 days on average.
 - O Documented AI tools and experiment results in Confluence, driving seamless adoption across the NextEra IT department.

May Front-End Developer, University of Florida, Gainesville, FL

2021–May O Worked in a cross-functional team maintaining 40+ UF departmental websites which served 50,000+ students and faculty campus-wide.

- Conducted accessibility audits across UF departmental websites, achieving 100% ADA compliance as measured by SiteImprove Analytics.
- O Developed and maintained over 10 custom PHP plugins, ensuring responsive design, enhanced cross-platform compatibility, and an improved user experience for a diverse user base.
- Led client consultations, effectively translating stakeholder requirements into actionable, impactful changes across the UF web ecosystem.

Projects

CVDex Mobile Pokedex app made in Flutter where users scan real life Pokemon images and store their entries like a real Pokedex.

XRAI Al art classifier leveraging the Al-ArtBench dataset and saliency map attributions in PyTorch.

PolyPaint Simple polygon shader with customization options developed in C++, OpenGL2, and ImGUI.

Publications

- [1] Jocelyn D., Zichong Wang, and Wenbin Zhang. Uncertain boundaries: Multidisciplinary approaches to copyright issues in generative ai, March 2024.
- [2] Zichong Wang, Jocelyn D., Xiaoyong Yuan, Zhong Chen, Yanzhao Wu, Xin Yao, and Wenbin Zhang. Individual fairness with group awareness under uncertainty. In Albert Bifet, Jesse Davis, Tomas Krilavičius, Meelis Kull, Eirini Ntoutsi, and Indrė Žliobaitė, editors, *Machine Learning and Knowledge Discovery in Databases. Research Track*, pages 89–106, Cham, August 2024. Springer Nature Switzerland.

Skills

Programming Python, C, C++, Java, JavaScript, Languages PHP, SQL, TypeScript

Frameworks PyTorch, Flutter, React, React Native, Node.js, CUDA, OpenGL

Tools Jupyter, Colab, LaTeX, Linux, Git, Confluence, Jira, GitHub Actions, Figma, MySQL, Microsoft Office

Spoken Languages

English Fluent

Vietnamese Fluent

Japanese Intermediate