ADITI MISHRA

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EDUCATION

Arizona State University *June 2019 - Present*
Doctor of Philosophy (PhD) *Current GPA: 3.81/4*
Major: Computer Science *Expected Graduation: May, 2024*

International Institute of Information Technology - Bhubaneswar *August 2014 - May 2018*
Bachelor of Technology (BTech). CGPA: 8.53/10
Major: Computer Science and Engineering

COURSES TAKEN

Artificial Intelligence, Semantic Web Mining, Data Mining, Natural Language Processing, Statistical Machine Learning, Human Computer Interaction,Data Visualisation, Fundamentals of Statistical Learning, Social Media Mining and others

TECHNICAL STRENGTHS

Languages	Python, R, C, C++, MySQL
Web Technologies	D3.js, JavaScript, JSON, NodeJS, HTML, CSS
Machine Learning Frameworks	Scikit-Learn, Tensorflow, Keras Pandas, TramineR, NLTK
Tools	Tableau, Gephi, MATLAB, Git

RESEARCH

- Jinbin Huang, **Mishra, A.**, Kwon,B.C., Bryan, C. ConceptExplainer: Understanding the Mental Model of Deep Learning Algorithms via Interactive Concept-based Explanations. *Accepted to IEEE Vis 2022* **(link)**
- **Mishra, A.**, Soni, U., Huang, J., Bryan, C. Why? Why not? When? Visual Explanations of Agent Behavior in Reinforcement Learning. *IEEE 15th Pacific Visualization Symposium (PacificVis), 2022* **(link)**
- **Mishra, A.**, Ginjpalli, S., Bryan, C. News Kaleidoscope: Visual Investigation of Coverage Diversity in News Event Reporting. *IEEE 15th Pacific Visualization Symposium (PacificVis), 2022* **(link)**
- Zhao, J., Xu, S., Chandrasegaran, S., Bryan, C., Du, F., **Mishra, A.**, Qian, X., Li. Y., Ma, K.-L. (2021). ChartStory: Automated Partitioning, Layout, and Captioning of Charts into Comic-Style Narratives. IEEE Transactions on Visualization and Computer Graphics (2021). **(link)**
- Bryan, C., **Mishra, A.**, Shidara, H., & Ma, K.-L. (2020). Analyzing Gaze Behavior for Text-embellished Narrative Visualizations under Different Task Scenarios. Visual Informatics, 4(3), 4150. **(link)**
- Huang, J., **Mishra, A.**, Arunkumar, A., & Bryan, C. (2020). TotemFinder: A Visual Analytics Approach for Image-based Key Players Identification. In 2019 IEEE Conference on Visual Analytics Science and Technology (VAST). **VAST Challenge 2019 Honorable Mention**.
- **Mishra, A.**, Hazarika, S., Biswas, A., ,Bryan, C. News Filling the Void: Deep Learning-based Reconstruction of Sampled Spatiotemporal Scientific Simulation Data. (2021) *Under review* **(link)**

WORK EXPERIENCE

ASU Sonoran Visualization Lab - *Research Assistant* *Aug 2019 - Present*
Advisor: Dr Chris Bryan

- Currently working on providing visual explanations of inexplicable agent behaviour for domain experts working with autonomous agents trained using Reinforcement Learning.
- Developed a full stack system with trained RL agents using TensorFlow and Python in backed and the front end interface created using D3.js.

Los Alamos National Lab - *Summer Research Intern* *June 2020 - August 2020*
Advisor: Dr Ayan Biswas

- Built a deep learning model to reconstruct large unstructured scientific datasets and performed various quality and performance based experiments to evaluate the same.

IIT - Guwahati - *Summer Research Intern* *May 2017 - July 2017*
Advisor: Dr Gaurav Trivedi

- Simulated N-Body simulation and visualized the same in the junior year of undergraduate.

ASU *Jan 2019 - May 2019*

- Grader for course CSE 310 - Advanced Data Structures

TALKS AND PRESENTATION

- **Conference Talk** - Why? Why not? When? Visual Explanations of Agent Behaviour in Reinforcement Learning. (Japan - Virtual Presentation)
- **Conference Talk** - News Kaleidoscope: Visual Investigation of Coverage Diversity in News Event Reporting. (Japan - Virtual Presentation)
- **Presentation** - How visualization can help explain Reinforcement Learning understandability (Tuscon - Arizona Vis Satellite Event)

AWARDS AND OTHER ACHIEVEMENTS

SCAI Doctoral Fellowship, ASU *2022*
Graduate College Travel Award, ASU *2022*
Grace Hopper Scholar - Orlando, Florida *2019*