Stephen Iota

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SUMMARY

Hands-on and highly motivated Data and Computer Scientist with a passion for problem-solving and a careful attention to detail, looking to apply strong analytical and programming skills to solve real-world challenges and contribute to the success of an interdisciplinary Data Science team. Committed to continuous learning to develop technological skills and innovative ideas.

EDUCATION

M.S., Computer Science, University of Southern California 2023
B.S., Physics, University of California, Riverside 2019

SKILLS

- Python, C/C++, Golang, Bash, LaTeX.
- PyTorch, TensorFlow, JAX, Huggingface.
- Experience with cloud computing (e.g. AWS, Azure, GCP) and GPU servers.
- Strong analytical background: calculus, statistics, linear algebra.
- Computer Vision (CNN, ResNet, ViT), NLP (nGram, Word2Vec, RNN, LSTM, BERT, Transformers), RL (Markov Chains, POMDP, Q-learning).
- Software engineering best practices (e.g. version control, testing, code review, etc.).

EXPERIENCE

Machine Learning Researcher, *USC Viterbi School of Engineering* Jan 2021 — Present

- Developed safe and robust transfer/meta reinforcement learning methods through unsupervised causal representation learning, significantly outperforming extant baselines and publishing results as an AISTATS conference paper.
- Managed machine learning experiments on GPU servers, achieving faster results and higher accuracy through parallel processing and optimized hardware utilization.
- Built machine learning pipelines to facilitate research initiatives, encompassing the stages of exploratory data analysis, data preprocessing, algorithmic design, and predictive modeling.

Machine Learning Intern, *Information Science Institute* Summer 2021

- Implemented a cutting-edge machine learning pipeline to automate classification of geological data and to improve science workflow of Sonoma State Geology research group.
- Combined custom fine-tuned deep learning vision models with experiment tracking, visualization heatmaps and comparative metrics for easy exploration of different models and hyperparameters.

Data Science Intern, *Information Science Institute* Jan 2021 — May 2021

- Conducted probabilistic modeling, numerical analysis and empirical validation of directed networks, useful for analyzing various phenomena in network science and computational social science, publishing work in Journal of Complex Networks.
- Demonstrated strong analytical, problem-solving, and critical thinking skills, as well as attention to detail and ability to work collaboratively in a research team.

Computer Vision Intern, *NASA Ames Research Center* Summer 2018

- Proposed new technique for more accurate and efficient detection and segmentation of 3D X-ray tomography data of NASA parachute materials.
- Leveraged nontrivial feature extraction using convolutional filters together with detection and tracking algorithms (Gaussian Mixture Model, template matching).
- Integrated techniques into an existing data processing pipeline built to study and improve performance of parachute material under extreme conditions.

OUTREACH & MEMBERSHIPS

Research Fellow**,** *USC AI Safety* Fall 2022
Team Lead, *USC Graduates Rising in Data Science (GRIDS)* 2021 — 2022
SI Leader (Physics and Math tutor), *UCR Academic Resource Center* 2018 — 2019

** Publications list available upon request.*