Luke Salamone

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Artificial Intelligence Master's student with a focus in computer vision, deep learning algorithms. Currently pursuing Summer 2021 internship in artificial intelligence/computer vision.

TECHNICAL SKILLS

Languages: Python, Java, Javascript
Packages: PyTorch, Tensorflow, Keras, OpenCV, Scikit-Learn, Numpy, Pandas
Techniques: Data Mining, Supervised Learning, Unsupervised Learning, Clustering

CERTIFICATIONS

- **AWS Certified Solutions Architect -** December 2017
- **Certified Software Security Engineer (Capital One) -** October 2018

EDUCATION

Master of Science (M.S.) - Artificial Intelligence, **Northwestern University** Expected Fall 2021
Bachelor of Science (B.S.) - Computer Science, **University of Wisconsin - Madison**

PROJECTS

Deep Q-Trading Agent - Traded stocks with 3 variations of multi-branch deep reinforcement learning agents. Reference paper: Replication of paper by Jeong et al.

- Model beats market by 144% on test range using transfer learning to maximize profits.

LSTM Language Model - Trained artificial recurrent neural network (RNN) to generate text in an unsupervised learning environment. Network architecture inspired by Zaremba et al.

- Achieved generation perplexity of 158 on Wikitext-2 and 76 on NYT corpus

GMM Classifier - Model used to classify MNIST digits into 10 different classes as an unsupervised learning clustering task. Model then used to generate new images.

- Accuracy of 62% in digit classification task using class-balanced dataset

LEADERSHIP EXPERIENCE

Senior Software Engineer, **Capital One** February 2017 - February 2020

- Facilitated 30% of all Capital One metadata inquiries through a dataset recommendation tool I built using a hierarchical classification machine learning system.
- Reduced ETL costs by 90+% by building a performant Java library for high-volume data streaming
- Reduced errors by 95+%, lead development of serverless app for data integrity / reporting

Android Developer, **Exis.io** May 2015 - June 2016

- Designed and built Bluetooth position approximation Android app. K-nearest neighbors machine learning classifier used to determine which room a user is currently in
- Designed and developed Cards Against Humanity Android app using Exis.io pub/sub websocket technology