John Walsh

Available: January - August 2022
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Education

Northeastern University, Boston, MA *August 2019 - Present*
Khoury College of Computer Sciences
Candidate for Bachelor of Science degree in Computer Science, 2023 (expected)
Concentration: Artificial Intelligence
Minor: Business Administration

GPA: 4.0/4.0, Dean's List, Northeastern's 2021 President's Award

Relevant Coursework: Algorithms (Graduate), Machine Learning and Data Mining 1, Natural Language Processing, Fundamentals of Computer Networking (Graduate), Object-Oriented Design, Computer Systems, Theory of Computation, Mathematics of Data Models

Technical Knowledge

Programming Languages:	Python | Java | Scheme | Javascript | HTML/CSS | C | SQL
Machine Learning Libraries:	Pytorch | Tensorflow | Keras | fast.ai | MLflow | nltk | Tesseract | NumPy | Scikit-learn
Software/Libraries:	AWS | Docker | Jupyter Notebook | Git | JUnit | Matplotlib | Tableau | LaTeX | JIRA

Experience

Liberty Mutual, Boston, MA - Data Science Co-op *January - August 2021*

- Worked as a member of Solaria Labs, a department of Liberty Mutual dedicated to the creation and application of cutting-edge insurance solutions.
- Designed, implemented, and improved multiple machine learning models and data science pipelines, utilizing image processing and computer vision techniques.
- Collaborated closely with and frequently presented to a team of full-time data scientists, product owners, and software engineers to ensure project success.
- Performed in an Agile environment utilizing tools such as Python, mlflow, fast.ai, Pytorch, Tesseract, Linux, Git, JIRA, and various AWS machine learning services.

Woods Hole Oceanographic Institution, Falmouth, MA - Student Intern *July - December 2018*

- Developed systems for monitoring oceanographic activity with artificial intelligence, using Python and Pytorch.
- Created a pipeline using a convolutional neural network and unsupervised clustering algorithms to identify plankton species with feature extraction, achieving ~60% accuracy in classifying unknown species.
- Utilized generative adversarial networks and variational autoencoders to create a latent space representation of anatomical features of common plankton species.
- Implemented variational autoencoders and unsupervised clustering to recognize audio patterns.

Projects

Excellence Animator *June 2020*

- Pair-programmed animation program for rendering and editing 2D animations using Java and IntelliJ.
- Created a intricate user interface for editing various animation properties utilizing Java Swing.

Senti *April 2020*

- Developed sentiment analysis dashboard for Youtube comments using a Long Short Term Memory Network, a type of recurrent neural network.
- Utilized Python, Keras, Numpy, the Youtube Data API v3, and Matplotlib.

Interests

Artificial Intelligence, Computer Vision, Natural Language Processing, Hiking, Cross-Country Skiing