### **Daniel Silver**

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### **Education**

## **Northeastern University**

Boston, MA

B.S in Computer Engineering/ M.S in Computer Engineering: Computer Vision, Machine Learning

May, 2021

Graduate GPA: 4.0, Major GPA: 3.66, Overall GPA: 3.47, Honors: Dean's List Spring 2019, Dean's List Fall 2016

**Relevant Graduate Coursework:** Machine Learning and Pattern Recognition, Parallel Processing for Data Analytics, Data Visualization, Big Data and Sparsity, Software Security

**Relevant Undergraduate Coursework:** Algorithms, Object Oriented Design, Capstone, Computer Architecture, Discrete Structures, Embedded Design, Networks, Database Design, Circuits, Differential Equations, Linear Algebra, Calculus III

#### **Technical Skills**

<u>Skills:</u> Deep Learning, Tensorflow, Natual Language Processing, Apache Spark, Generative Adversarial Networks, Triplet Embedding Networks, Computer Vision, Object Tracking, Linux, Arduino, Raspberry Pi, Hashes and salts <u>Programming Languages</u>: CPython, Java, C++, Assembly, Verilog, SQL, Bash, PowerShell, Node JS <u>Software</u>: Unity, GIT, MATLAB (including Simulink), SolidWorks 2016, AutoCAD 2016, Microsoft Office Suite

# **Work Experience**

Lux Research April 2019-Present

Natural Language Processing & Software Engineering Intern

- Utilize state of the art NLP techniques to classify all 900,000 Crunchbase companies for internal purposes
- Perform pre-processing pipelines for massive amounts of company data for machine learning uses.

### Air Force Research Lab, Information Doctrine

July 2018-December 2018

Machine Learning Research Coop

- Generated artificial images and audio samples using GANs with CNNs
- Created texture generalizations for reinforcement learning using auto-encoders
- Transfered image style from one set of images to another using Cycle GANs
- Implemented algorithms from different research papers and document results for the Air Force Research Lab
- Preformatted audio and image data to optimize learning for deep neural networks
- Utilized LSTMs for sequence to sequence mapping

#### **Action Lab, Northeastern University**

September 2017-April 2018

Computer Vision/Software Research Assistant

- Optimized programs for color tracking using Open CV
- Created augmented reality games for data acquisition using Python
- Analyzed movement and stability data to assist children with muscular disorders
- Administered testing in a laboratory setting
- Built GUIs in Python for accessibility and easing customizable run configurations
- Calibrated cameras to eliminate distortion in precise motion tracking

## Virtual Operations

May 2017-July 2017

Intern

- Developed scripts in Bash, PowerShell, and Python to automate IT services for use on over 600 hundred computers, both Mac and Windows
- Created salted hashes using Node JS and PowerShell, ensuring security with bearer tokens for APIs
- Designed custom GUIs and reports using 3<sup>rd</sup> party REST APIs to expand reporting capabilities beyond the software's standard capabilities.