

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

Skills: Deep Learning, Tensorflow, Apache Spark, Generative Adversarial Networks, Triplet Embedding Networks, Computer Vision, Object Tracking, Linux, Arduino, Raspberry Pi, Hashes and salts, GUI design/ implementation, Game design for research/data acquisition, Webscraping, Embedded design, FPGAs, Procedural Generation

Programming Languages: CPython, Java, C++, Assembly, Verilog, SQL, Bash, PowerShell, Node JS

Software: Unity, GIT, MATLAB (including Simulink), SolidWorks 2016, AutoCAD 2016, Microsoft Office Suite

Work Experience

Air Force Research Lab, Information Doctrine

July 2018-December 2018

Machine Learning Research Coop

- Generate artificial images and audio samples using GANs with CNNs
- Create texture generalizations for reinforcement learning using auto-encoders
- Transfer image style from one set of images to another using Cycle GANs
- Implement algorithms from different research papers and document results for use by the Air Force Research Lab
- Preformat audio and image data to optimize learning for deep neural networks
- Utilize 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 3rd party REST APIs to expand reporting capabilities beyond the software's standard capabilities.
- Performed quality assurance on SQL data migration using MySQL and Microsoft SQL
- Automated sending mass customizable emails over an SMTP server