Daniel Shats

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Education

University of Florida
Gainesville, FL

B.S. in Computer Science & Mathematics (Double Major), GPA: 3.5/4.0 *Aug. 2016 - Dec. 2020*

- **Computer Science Coursework:** Data Structures & Algorithms, Databases, Modeling and Animation, Natural Language Processing, Digital Logic, Software Engineering, Operating Systems, Math for Intelligent Systems, Machine Learning
- **Mathematics Coursework:** Sets and Logic, Discrete Math, Differential Equations, Abstract Algebra, Numerical Analysis, Linear Algebra, Advanced Calculus 1 & 2
- **Extra-curricular coursework:** Completed FastAI's Practical Deep Learning course and Udacity's Intro to Machine Learning course

Experience

IBM Research
Givatayim, Israel

Research Intern *Feb. 2020 - Present*

- Currently working on a web-based visual interpretation of various causal inference algorithms used with healthcare data that will be made public upon completion. Done with Flask, Python, JavaScript, and HTML.

CDM Smith
Boston, MA

Artificial Intelligence Intern *Jun. 2019 - Jan. 2020*

- Implemented a state of the art computer vision automobile detection, tracking, and re-identification model that significantly improved upon the accuracy and stability of their previous model.
- Worked with a team to label huge datasets to be used in model training and evaluation.

UF Machine Learning and Sensing Lab
Gainesville, FL

Undergraduate Research Assistant *Jan. 2019 - Dec. 2019*

- Assisted in writing the paper "Multi-Target Multiple Instance Learning for Hyperspectral Target Detection" by analyzing, optimizing, and testing the performance of various machine learning algorithms. Worked with electromagnetic and hyperspectral data.
- Wrote an interactive version of the MI-ACE algorithm for use with semantic segmentation of root images taken with the minirhizotron camera.

Rokitt Astra
Jersey City, NJ

Software Engineering and Data Science Intern *May. 2017 - Aug. 2017*

- Built a tool used to benchmark any Linux server's disk speed, written with python and bash. Tested on various Linux distributions using Vagrant.
- Used natural language processing to effectively classify unique types of personally identifiable information for use with GDPR compliance.

Projects

hot_budr
- Founder of a small lifestyle and technology company. We have given away thousands of stickers to people all over the world, sell shirts on Amazon, and make technology products in our spare time for fun. We also have an Instagram with 600+ followers managed by my team mate.
- Made an app that has 200+ downloads on Apple App Store and Google Play Store. It was built with Flutter, Dartlang, and Google Cloud Firestore.

Raspberry PI Security Camera
- Detects faces of anybody walking into my room and will text me a picture of them to prevent roommates from stealing snacks from my minifridge.
- Uses raspberry pi, camera, and a python script with OpenCV to detect faces and Twilio to send MMS messages.

Kaggle Competitions
- Achieved state of the art results on Cats and Dogs classification competition, Dog Breeds classification competition, as well as seedlings classification competition using the FastAI library and Pytorch.

Skills

Languages Python, C++, Dartlang, Java, Bash, Matlab, MySQL, Flask

Libraries Pandas, Numpy, FastAI, PyTorch, Scikit-Learn, OpenCV, Matplotlib, Seaborn, Tkinter, PyQt

Other Git, Linux, Jupyter Notebook, Flutter, Firebase, AWS, Vagrant, SolidWorks