

# Isaiah Niels

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## Experience

Software Engineer Intern @ Facebook, May 2019 - Aug 2019

Will be working on machine learning and computer vision related projects this summer.

Data Science Intern @ iMobile3, Jan 2018 - Jan 2019

Designed, developed, and published 5 applications to automate business and competitive analysis tasks, which garnered over 1000 downloads. Built machine learning models to predict when merchants leave the platform. Collected and analyzed data about 22 Android and iOS point of sale applications and made data-driven feature recommendations.

Computer Engineer @ UF, Coleman Lab, May 2016 - May 2017

Received 1st place at Florida State Science Fair for work. Designed and developed a low-cost operant chamber for behavioral experiments. Programmed the operant chamber trial flows with Python 2.7 and created a control panel GUI with Tkinter. Assisted in constructing the operant chamber circuitry on an Arduino.

## Education

B.S. Computer Science @ University of Florida, Aug 2017 - Jun 2020

GPA: 3.96 / 4.00

Courses: Data Structures & Algorithms, Computer Organization, Numerical Analysis, Linear Algebra

Deep Learning Specialization @ Coursera, Deeplearning.ai, Aug 2018 - Feb 2019

Courses: Neural Networks, Sequence Models, Convolutional Neural Networks

## Projects

DeepTrash @ MakeHarvard 2019, Feb 2019

Won 1st place at MakeHarvard 2019 for DeepTrash, a smart trash can that sorts your trash for you. Designed the convolutional neural network that recognized whether trash was compost, recyclable, or waste. Applied transfer learning to the MobileNet model to achieve faster training. Achieved 85% validation accuracy after training on 1,500 examples.

Danger.ai @ SwampHacks V, Jan 2019

Won 2nd place at a SwampHacks V for Danger.ai, a video monitoring system powered by deep learning. Designed and developed the machine learning pipeline to detect danger in videos. Utilized state of the art models including recurrent and convolutional neural networks.

CSV to SQLite @ GitHub, May 2018 - Dec 2018

Received 800+ downloads and 30+ stars on GitHub. Designed and developed a cross-platform desktop application for quickly converting CSV files to SQLite databases. Reduced conversion times by ½ compared to a standard command line method.

Search Queue @ Chrome Store, Jan 2018 - May 2018

Received 50+ downloads on Chrome Store. Spearheaded development of Chrome extension that allows a user to queue up multiple searches and quickly make them. Reduced time to complete competitive analysis tasks at iMobile3 and TIAA Bank by over 25%.

Web Loader @ GitHub, May 2018 - Aug 2018

Thought up and created a script to download entire websites using PhantomJS. Continuously monitored changes made to iMobile3's competitor's websites with the script running on Raspberry Pi. Conducted text analytics on downloaded content using Python and Pandas.

## Skills

Languages: Experienced: Python, JavaScript, HTML/CSS, SQL; Familiar: Java, C++, MATLAB, R  
Frameworks / Libraries: Tensorflow, Keras, Pytorch, Pandas, Vue.js, React, Node.js, Electron.js

## Awards

1st Place @ Florida State Science Fair, 1st Place @ HackHarvard 2019, 2nd Place @ SwampHacks V