# Shrikar Thodla

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## **Work Experience:**

#### **Data Science Intern** at Retrace Labs

Oct 2019 - Present

- Standardized images by training and deploying a neural network, made with Python and PyTorch, to detect accidental rotation in images.
- Optimized code to query images from MongoDB by batch querying and multiprocessing using Python, which led to a 5x decrease in execution time.
- Led the migration of full-stack components from Google Cloud to IBM by setting up virtual server instances and user access management rules.
- Modified existing models, like UNet, using PyTorch to help segment objects in medical scans and generate masks for images.

# Associate at Infosys Limited

Feb 2018 - Apr 2019

• Decreased the number of security vulnerabilities in production and non-production servers by coordinating activities between the application and patching teams, while also giving frequent updates to stakeholders.

# Lab Assistant at Young Lab

Dec 2014 - Oct 2016

- Co-developed an R package, SeqRetriever, that helps researchers quickly test hypotheses and explore gene expression data.
- Designed an experiment to estimate the effect of different growth hormones on bacterial strains to show that the growth hormone was not a confounding variable.

#### **Education:**

# University of San Francisco: M.S. in Data Science

June 2020

• Relevant Courses: Machine Learning, SQL, Time Series Analysis, Distributed Computing, Data Acquisition, Data Ethics, Product Analytics, A/B Testing & Experimental Design, Data Structure & Algorithms

## University of Michigan: B.S. in Informatics, Minor in Mathematics

Dec 2017

Relevant Courses: Linear Algebra, Coding Theory, Probability and Statistics, Data Mining

### **Projects:**

## **Bengali Character Classification** (Kaggle Competition)

Jan 2020 - Mar 2020

- Top 10% in the competition out of 2059 teams.
- Predicted 3 different labels for 200k+ Bengali characters by training a CNN in PyTorch.
- Improved model performance by implementing findings from research papers, such as Cutmix and Mixup.
- Code can be found here: <a href="https://github.com/ash-jha/kaggle\_bengali">https://github.com/ash-jha/kaggle\_bengali</a>.

# **StreamHopper** (streamhopper.video)

Mar 2020 - May 2020

- Developed and pitched a web application made in Python that recommends which streaming service a user should choose based on their preferences in order to stave off subscription fatigue.
- Data for all the shows and movies on each streaming platform was pulled from two APIs using Python and standardized in order to join the data.
- Code can be found here: <a href="https://github.com/matthewcking312/StreamHopperPublic">https://github.com/matthewcking312/StreamHopperPublic</a>

## **ML Algorithm Implementations**

Oct 2019 - Feb 2020

• Recreated implementations of popular machine learning algorithms in Python, such as Random Forests, Decision Trees, Naive Bayes, K-Means, TF-IDF, and multiple feature importance algorithms.

#### **Technical Skills/Libraries:**

Python (scikit-learn, NumPy, pandas, SciPy, spaCy), PyTorch, PostgreSQL, AWS, Github, R, Spark (PySpark), ggplot2