Satvik Kishore

Education

Duke University Durham, NC
Masters in Interdisciplinary Data Science *2021–2023*
Relevant Courses: Statistics, Machine Learning, Cloud Engineering, Natural Language Processing, Computer Vision and Medical Imaging, Causal Inference

Indian Institute of Technology Madras Chennai, India
B.Tech., Materials Engineering; Minor in Industrial Engineering *2013–2017*

Relevant Courses: Probability, Decision Modeling, Pattern Recognition, Operations Research, Computational Engineering

Technical Skills:

- **Python:** PyTorch, Tensorflow (Keras), Pandas, Scikit-Learn, Flask
- **R:** data.table, ggplot
- git, docker
- **Certifications:** AWS Machine Learning Specialty

Certifications

Publications

- Kishore, S., Thomas, T., Sachdev, H., Kurpad, A. V., & Webb, P. (2022) Modeling the potential impacts of improved monthly income on child stunting in India: a subnational geospatial perspective. *BMJ Open*, 12:e055098. https://doi.org/10.1136/bmjopen-2021-055098
- Shivakumar, N., Kashyap, S., Kishore, S., Thomas, T., Varkey, A., Devi, S., Preston, T., Jahoor, F., Sheshshayee, M. S., & Kurpad, A. V. (2019). Protein-quality evaluation of complementary foods in Indian children. The *American journal of clinical nutrition*, 109(5), 1319–1327. https://doi.org/10.1093/ajcn/nqy265

Research Experience

Interpretable AI for diagnosing breast cancer *Summer 2022–Present*

- Building convolutional neural networks with additional prototype layers.
- These models provide diagnoses on malignancy of breast tissue along with informing the physician why the model has made the prediction.

Earthquake Early Warning Detection, Duke University *Summer 2022*

- Built a prototype Machine Learning Model and framework to detect incoming earthquakes and classify their severity from seismological data.
- Explored the efficacy and performance of Gaussian Process Regression to model seismological data.

- Improved upon state the current state of the art model evaluation metrics by models by 30%.

Professional Experience

Data Scientist, St. John's Research Institute *2017–2021*

Projects

Brain Tumor Segmentation *Spring 2022*

- Built machine Learning Models to segment brain tumour images and detect regions where tumor exists

Optimizing CT scan slice count through Lesion detection using YOLO *Spring 2022*

- Simulated CT scans and optimzed number of CT slices needed to detect lesions

Does Airbnb listing’s annual revenue vary by with host status? *Spring 2022*

- causal inference from airbnb

AWS Cloud Tweet Generator *Fall 2021*

- An AWS powered tool that generates new relevant tweets everyday

Star Trek: Analysis of Episodes *Fall 2021*

- A statistical analysis of four star trek TV shows to evaluate character perception.