

HARINI SURESH

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EDUCATION

Massachusetts Institute of Technology (MIT)
Bachelor of Science in Computer Science, 2016
Master of Engineering in Computer Science, 2017
PhD in Computer Science, current
GPA: 4.9/5.0

RESEARCH

Clinical Decision Making Group, MIT
Summer 2016 - present | Cambridge, MA
Integrated multimodal clinical data and used neural network models to uncover latent physiological states of patients during critical illness, with the goal of improving intervention prediction in intensive care units (accepted to *Machine Learning for Healthcare* in Boston, 2017).

Computational Biophysics Group, MIT
Fall 2015 - Summer 2016 | Cambridge, MA
Optimized prediction of mortality in intensive care units by introducing new feature transformations for clinical data; implemented logistic regression models, regularization, and bootstrapping techniques.

EXPERIENCE

Data Scientist at Jawbone
Summer 2015 | San Francisco, CA
* Used data from Jawbone UP bands to build models of how long and short term user behavior affects heart rate
* Shipped personalized insights to users on automatic travel detection, workout and heart rate trends
* Insights received an App Content Score of double the current average within the first 48 hrs of release
* Published two visual data stories on Jawbone blog

Data Scientist at Zephyr Health
Summer 2014 | San Francisco, CA
* Using raw Medicare data, developed and shipped an application allowing pharmaceutical companies to compare prescriptions from specific disease areas, aggregate information about similar drugs & healthcare providers, and design an efficient go-to-market strategy
* Created several visualizations to analyze doctor referral patterns by specialty

PROJECTS

Pre-trial Fairness - challengethebias.github.io
An analytical interface to understand the tradeoffs between different frameworks of fairness, with the goal of making fair, data-driven models easier to understand and adopt. Winner of the *Hacking Bias in ML* hackathon hosted by Microsoft New England.

Commonwealth Stats - massnonprofitnet.herokuapp.com
An application for non-profit organizations to access and analyze important demographic data from the US Census Bureau in an easy and visual way, for use in grants, reports, or research. Made for the Massachusetts Nonprofit Network.

Horizon - github.com/harinisuresh/horizon
A chrome extension to provide visually-impaired users with image alt-text for screen readers, using convolutional neural networks to caption images.

DistDetect - github.com/harinisuresh/yelp-district-clustering
Leveraged LDA topic modeling, Gaussian Mixture Models, and KNN classification to detect and label cultural city districts, and give insight into optimal locations for new businesses; submitted to the Yelp Dataset Challenge.

TEACHING

Intro to Deep Learning, Lead Organizer
January 2017 | Cambridge, MA
Led an extensive introduction to the field of deep learning, covering applications to machine translation, image recognition, game playing, image generation and more. Included hands-on labs in TensorFlow and peer brainstorming sessions. 250+ students attended.

SKILLS

Python	MATLAB
TensorFlow	SQL
Theano	Scikit-learn
Keras	NumPy
Jupyter	R
Java	JavaScript
HTML	CSS