

SUNNA JO, M.D.

SUMMARY

Motivated data scientist and physician seeking to use data science to identify actionable insights and build and employ solutions to high-impact problems.

EXPERIENCE

Metis

Data Scientist

Sept. 2020 to Dec. 2020

12-week accredited, immersive data science program centered on comprehensive, project-based learning of data wrangling and analysis, statistical and probability theory, and machine learning.

Selected projects include:

Determining Bone Age Using Deep Learning

- Using transfer learning and attention mechanisms, built convolutional neural network regression models to predict the bone age of pediatric patients based on radiographic images
- Built an online application that predicts bone age based on an image uploaded or chosen by a user and provides education and resources regarding bone age

Using Natural Language Processing to Mine COVID-19 Research

- Used natural language processing of published abstracts available on PubMed and topic modeling techniques to determine themes in COVID-19 research and analyzed these themes to gain insight into previous and current trends in this area of study
- Built a content-based recommender system that suggests similar COVID-19-related research abstracts to users

Predicting Outcome of Patients with COVID-19

- Using patient- and national-level data, built a gradient-boosted classification model to predict the outcome (death vs. not) of a patient with COVID-19 in the U.S. and identified features that may be associated with an increased risk of death
- Built and deployed an online application that allows a user to predict the outcome of a patient with COVID-19 based on selected features and with interactive data visualizations

Predicting User Ratings of Hip Hop Albums

- Using data scraped from a music album ratings website, built a linear regression model to predict the user rating of a hip hop album and identified characteristics that may contribute to how highly a user rates an album

PM Pediatrics

Pediatric Urgent Care Physician

July 2018 to Current

- Evaluation, diagnosis, and management of a variety of acute illnesses and injuries in patients 0-25 years of age
- Oversight and management of the workflow for each clinical shift, working with other providers and medical staff
- Member of clinical informatics team: assisted with practice-wide transition to eClinicalWorks electronic health record system, built templates and clinical decision support systems within EHR, assisted with optimization of workflows, created tutorials and provided elbow support for end-users

Montefiore Medical Center

Pediatric Resident Physician

July 2015 to June 2018

- Cared for pediatric patients in inpatient and outpatient settings throughout the Bronx
- Areas of training: Primary Care, Hospital Medicine, Emergency Medicine, Adolescent Medicine, Hematology and Oncology, Neonatal and Pediatric Intensive Care, subspecialties (Infectious Disease, Allergy and Immunology, Gastroenterology, Nephrology, Pulmonology, Rheumatology, Dermatology) Completed several clinical research projects end-to-end, including data collection, analysis, visualization, and presentation
- Assisted with hospital-wide transition to Epic electronic health record system, built templates and macros within EHR to optimize workflow and improve safety in patient care
- Participated in rigorous evidence-based medicine and quality improvement curricula

AWARDS

Golden Key International Honor Society

2010

The Golden Key International Honor Society is the world's largest collegiate honor society for graduate and undergraduate students who are at the top 15% of their class.

Gold Humanism Honor Society

2015

The Gold Humanism Honor Society (GHHS) is a national honor society created by the Arnold P. Gold Foundation for Humanism in Medicine that honors senior medical students, residents, and physicians recognized for excellence in clinical care, leadership, compassion, and dedication to service.

CONTACT

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🌐 [sunnajo](#)

EDUCATION

Albert Einstein College of Medicine 2010 to 2015

Doctor of Medicine

Cornell University 2006 to 2010

B.A. Biological Sciences

SKILLS

PROGRAMMING LANGUAGES/TOOLS

Python

SQL

Web scraping

Version control: Git

Command line

Application development: Streamlit

DATA VISUALIZATION

matplotlib

seaborn

Tableau

plotly

MACHINE LEARNING

Supervised learning: regression, classification

Unsupervised learning: dimensionality reduction, clustering

Natural language processing

Deep learning: neural networks

LIBRARIES

pandas

numpy

scikit-learn

statsmodels

Beautiful Soup

Selenium

spaCy

NLTK

gensim

TensorFlow

Keras

CLINICAL INFORMATICS

Electronic health records

Epic (superuser)

eClinicalWorks (superuser)

ICD-10