# MOTHER/ INFANT

*HEALTHCARE AND MACHINE LEARNING*

## V. RATNAM MANTRIPRAGADA

I am a PhD Biomedical Engineer working as a Project Scientist at Cleveland Clinic. I have 5+ years of research experience in the field of stem cells for tissue engineering applications. I strongly believe in the phrase "health is wealth"! I aspire to pursue a career in good data-driven science to help curtail human health issues.

## JOAN E. STONE-MAYS

Bio:

## CAROL KADISH

I can be reached on linkedIn as Carol (Pietro) Kadish as well as on GitHub: https://github.com/cmpietro. I have 12 years experience as a Business Analyst, am a 200 hr wellness yoga instructor. I enjoy exploring data where science and art meet.

## KASHIFA AHMED

My real strength is my attention to detail. I pride myself on my reputation for following through and meeting deadlines. When I commit to doing something, I make sure it gets done and on time. I also hold a degree in Engineering.

## MOHAMMED N. IRSHAD

Proactive achievement driven Supply Chain Manager.
Experienced in leveraging multifaceted competencies and deliver outstanding results aligned to corporate goals and objectives thus adding value to the organization.

## HOW TO USE MACHINE LEARNING

### Improve healthcare outcomes or predict causes

We reviewed Mom/Baby data from the CDC & microbiome data from mom/baby pairs

- microbiome data: accuracy =78.23%
- Q1_maternal_characteristics: accuracy=83.08%
- Q2_labor_characteristics: accuracy=73.58%
- Q3_delivery_characteristics: accuracy=85.46%

### Machine Learning

XGBoost was the model used in all

· Good results were not achieved until we binned the APGAR variable into a binary of < 5 and > 5.

## ONE VISUALIZATION

**The reason for our project, see if we could identify factors that can help predict APGAR scores, which in turn help predict infant outcomes**