

STRESS MANAGEMENT

BRIAN MCKEAN

BIOTRAK
HEALTH



TEAM

NEWS & PRESS

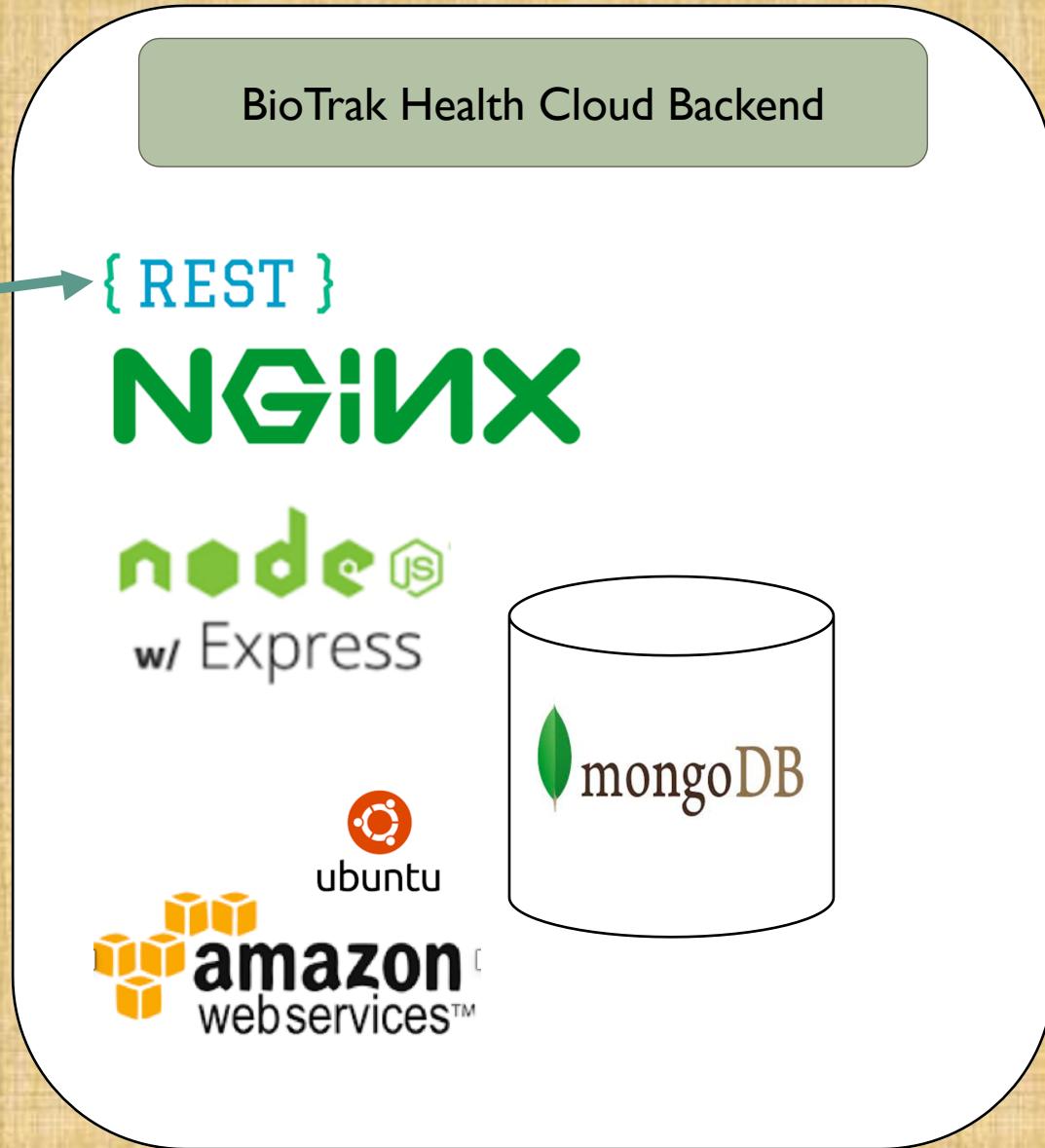
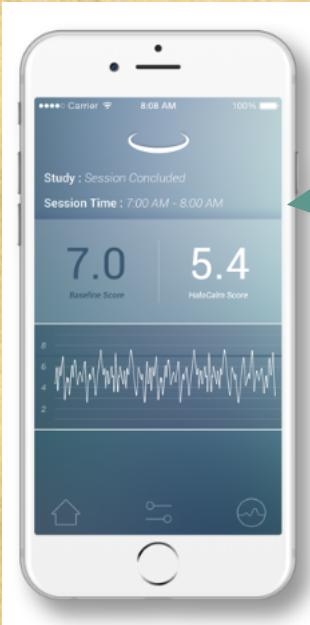
CONTACT US

DIGITAL THERAPEUTICS FOR PAIN & STRESS
MANAGEMENT



<https://www.bitrakhealth.com/>

ARCHITECTURE



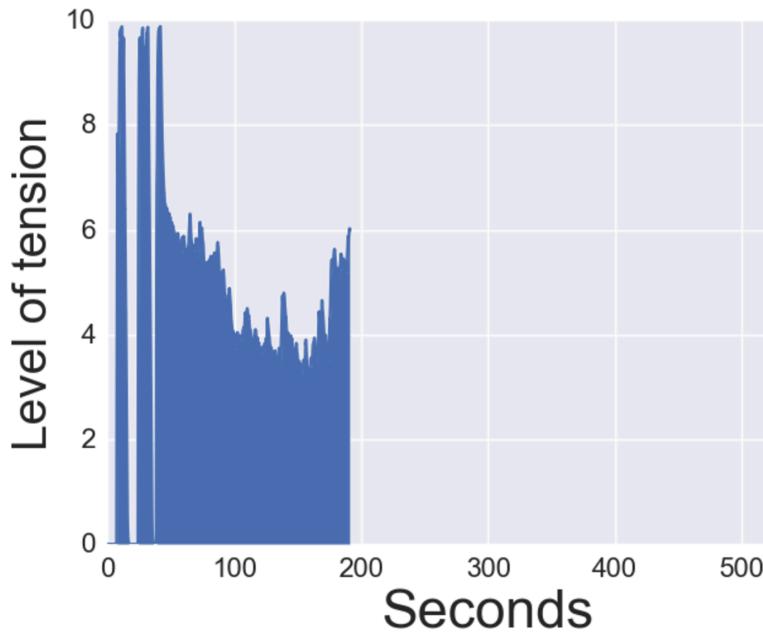
PROJECT OBJECTIVES

- Friend and Family Trial Started
 - Monitor Sessions Done by Trial Users
 - Develop Automated Classification

Identify Bad Sessions

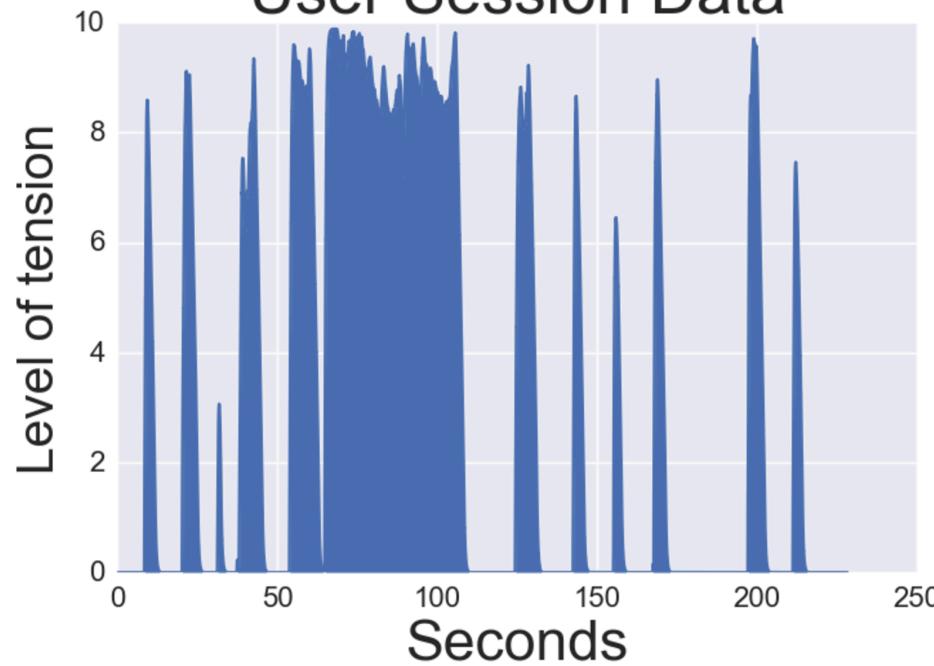
DATA

User Session Data



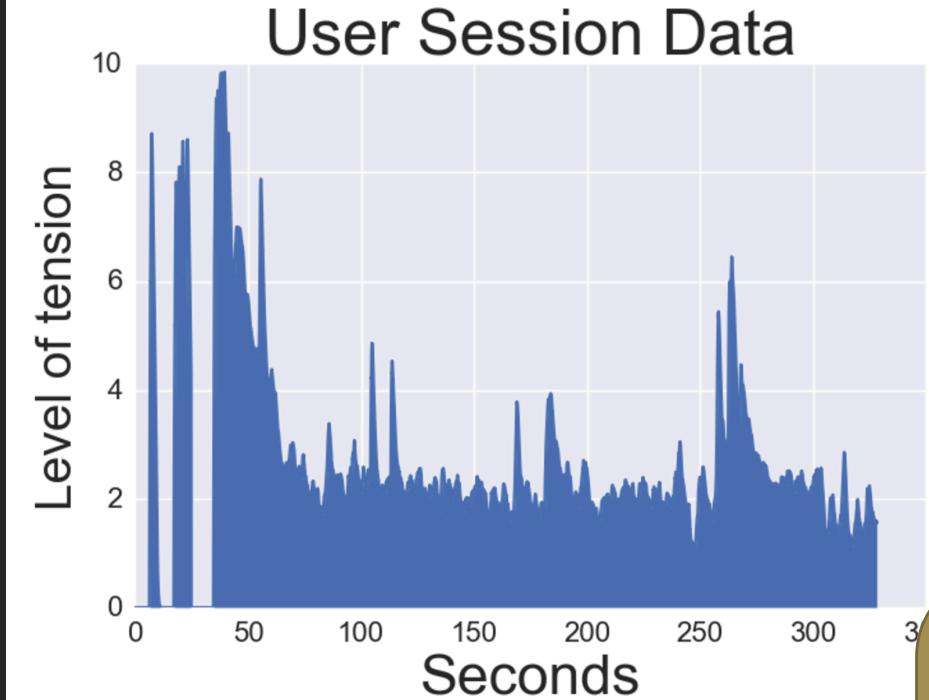
Effective Session

User Session Data



Session with problems

ANALYSIS



Length of time series
Average Frequency
Largest movement

Min
Max
Mean
Standard Deviation

Random
Forest

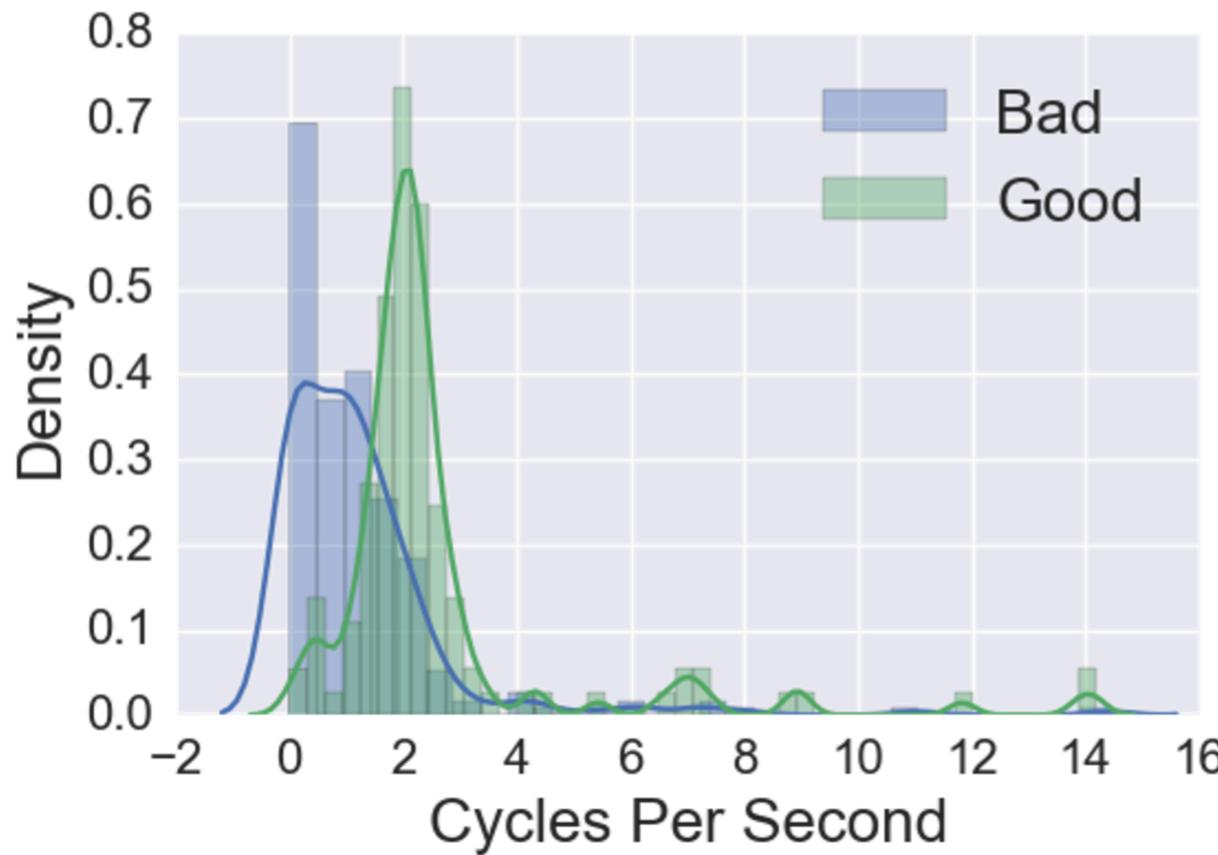
356 Sessions
“Good” : 119
“Bad”: 237

Heuristics for good sessions:

- At least 60 seconds
- No drop to 0 after 60 seconds
- No rise to 10 after 60 seconds

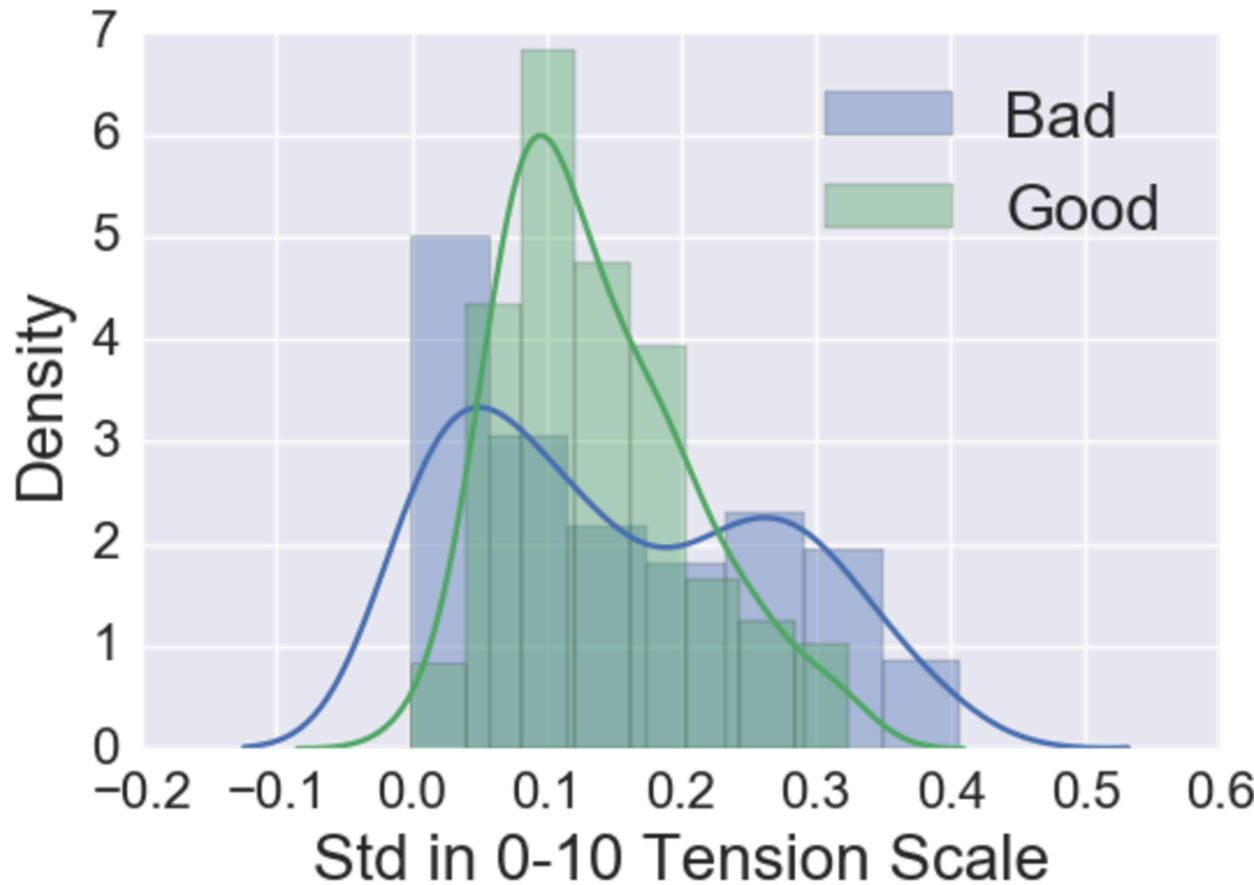
MODEL- FEATURE INFLUENCE

Average Frequency in Tension Measurement



MODEL- FEATURE INFLUENCE

Standard Deviation in Tension Measurement



RESULTS - MODEL DEPLOYMENT

BioTrak Health Cloud Backend

{ REST }

NGINX

node.js
w/ Express

ubuntu
amazon
webservices™



Data Science Stack



QUESTIONS?

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