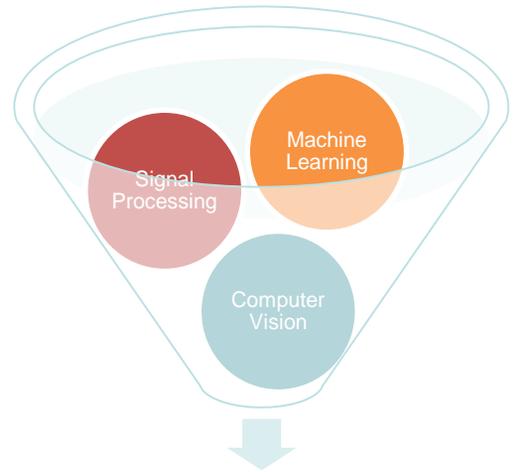# Automated Algorithm Design:
Georgia Tech Multiple Objective Evolutionary Programming (GTMOEP) Framework

Three inputs are required to use GTMOEP to solve a problem:

1. Truth Data: Data that has been categorized
2. Objectives: Measures of the fitness for every individual (e.g. TP, FP, Complexity)
3. "Primitive" Functions: The pieces of the current leading solutions to this problem

GTMOEP provide the insertion of new data, objectives and primitive functions in an extensible way, allowing us to tackle many different domains of application

GTMOEP uses genetic programing to explore the trade off space between objectives to return a number of solutions we can use to not only solve a problem, but learn from our data

GTMOEP combines the best of human designed techniques to create brand new algorithms
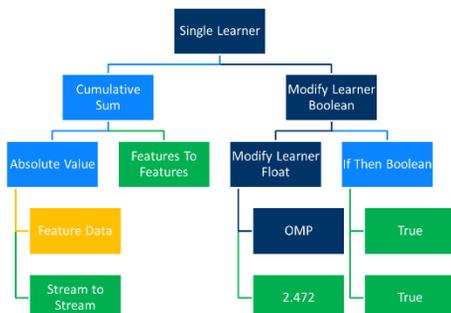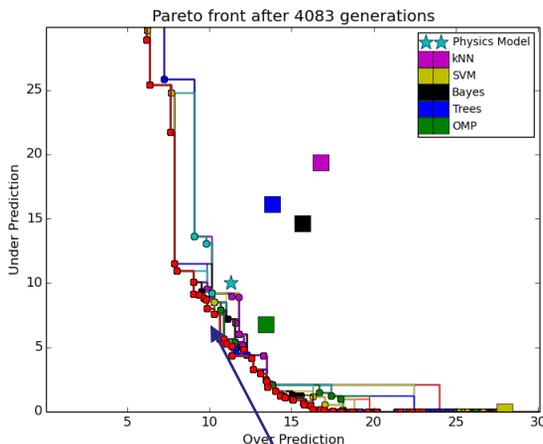
We seek to work with multiple novel algorithmic providers to integrate algorithms together in an automated dispassionate method to provide novel solutions that can be examined to accelerate the advancement and inspiration of new techniques

Greg Rohling, Ph. D.
Principal Research Engineer
Georgia Tech Research Institute
Greg.Rohling@gtri.gatech.edu
404-407-8138