Areas of Interest

Akshay Bhasin

1. Energy Consumption

    a. Can we develop an analytics tool to gather an predict energy consumption of control systems on Building management systems?

    b. Can we predict solar power generation using weather data?

    c. Can we predict wind turbine power generation using weather data?

2. Video Games

    a. Can we create a tool to support an individual user in making choices in a video games (eg. Suggested routes, suggested buy items, suggested play times, etc.)? The goal would be to help improve users skill at playing the game?

    b. Can we teach a computer to do a "speed run" (route-optimization)?

    c. Can we predict the churn rate for mobile video games?

3. Natural Language Processing

    a. Can we teach a computer to read a specification and pull out only pertinent information for estimating? Could we go so far as have it suggest an estimate and highlight areas where inconsistencies exist?

    b. Can we teach a computer to read political articles and pull out a summary of the differences of opinion?

    c. Can teach a computer to translate idioms and metaphors from one language to another?

4. Business

    a. I found a dataset containing average avocado prices and sales by region in the United States from 2013 till now for HASS avocados. Can I predict the average avocado prices by region in the US?

    b. Can we predict the demand for uber drivers in different regions around the GTA at any given time?

    c. Can I predict the demand for over-the-counter medications and products for my Dad's pharmacy?

5. Healthcare

    a. Can we predict the spread of disease from region to region? (I'm not sure based on what factors to consider yet...)

    b. Can we predict or suggest the most effective breast cancer treatments based on images of the cancer and rate of growth?

    c. Can we appropriate select treatments based on symptoms for Clinic walk-in patients?