Previous Final Project Ideas

Supervised Learning

Learning to predict:
- Golden Globe winners
- Bots vs. humans on Twitter
- Energy usage on campus
- Athlete performance (Moneyball)
- Winning teams in D3 basketball
- Winning teams in video games (e.g., League of Legends)
- Music genre
- Which song a person is humming
- Health outcomes (e.g., cardiovascular disease)

Learning to identify:
- Buttons in a user interface (towards accessible interfaces)
- Musical counterpoints
- Musical authors
- Poetry eras (time periods)
- Image recognition (objects, clothes, medically diagnostic feaures)
- Movie genre based on actors involved
- Bias in machine learning

Learning to generate:
- New music
- Standup comedy routines
- Recommendations for clipart, board games to play, movies to watch
- Spam emails
- Solutions to the set cover NP-complete problem
- Solutions to math problems
- Missing video frames in video and upscaling images
- Social media posts (similar to YikYak)

Broader issues:
- Addressing bias in machine learning

Unsupervised Learning

Learning patterns from and data mining:
- User transactions
- Stylistic transfer in art

Reinforcement Learning

Learning how to:
- Accomplish benchmark RL tasks
- Play Atari games
- Play other video games
- Play board games
- Drive a simulated car