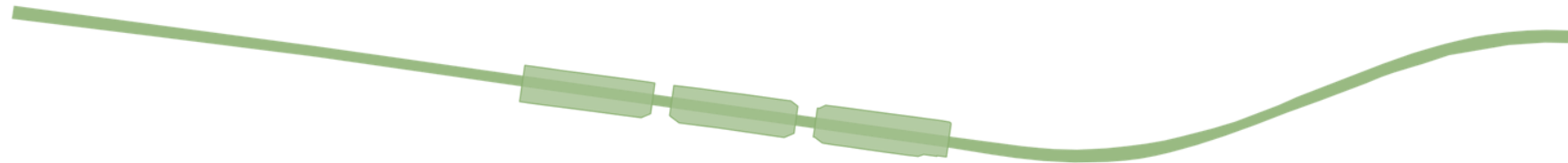




What are the spatial and temporal changes in land cover around the Chinatown Stitch between 2010 and 2022?

Reporter: Luming Xu
Instructor: Xiaojiang Li
2025-04-28





3.36 km²
Study Area

29,503.85 m²
The Chinatown Stitch Area

2.16 km
I-676 in Study Area



Land Use Change?

Planning of **the Rail Park** began

2010

2013

Construction of **the Rail Park** began

2017

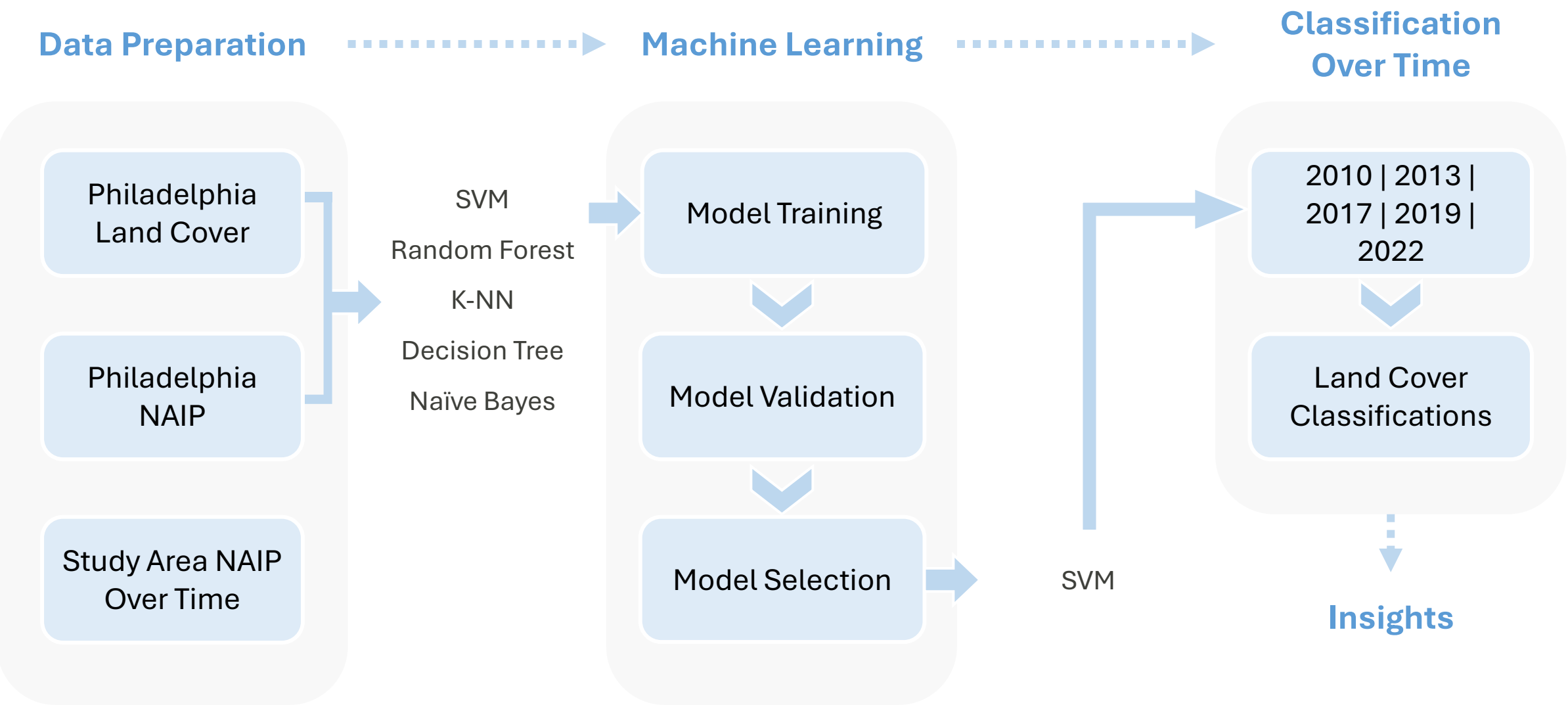
Phase 1 of **the Rail Park** was open to the public

2019

2023

The Chinatown Stitch project began

2022



51.7%
SVM

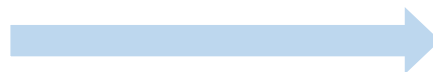
49.8%
Random Forest

48.1%
K-NN

39.1%
Decision Tree

41.7%
Naïve Bayes

- Normalization
- Handling Imbalanced Data
- Use *GridSearchCV* for Model Hyperparameter Tuning
- Cross-Validation
- Feature Selection



55.7%
SVM

52.2%
Random Forest

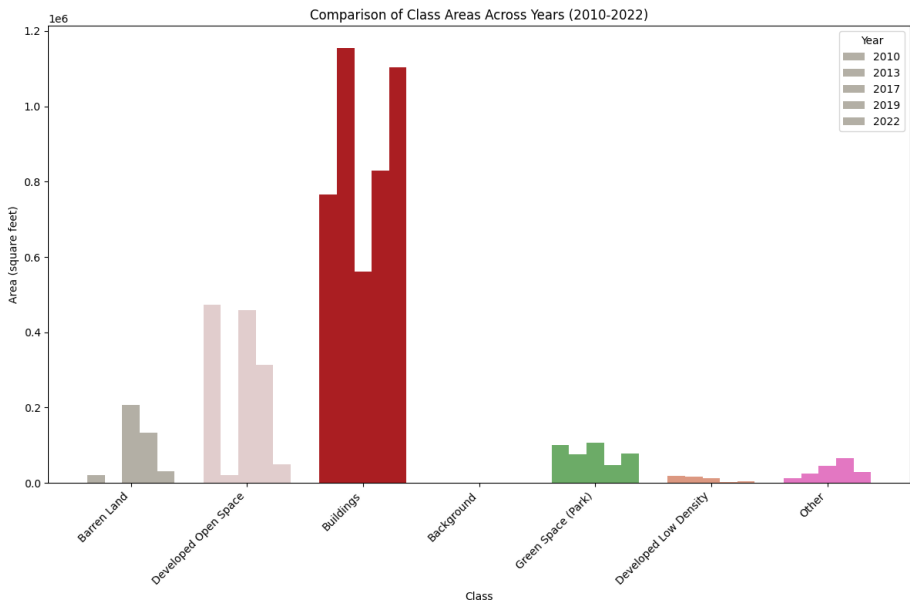
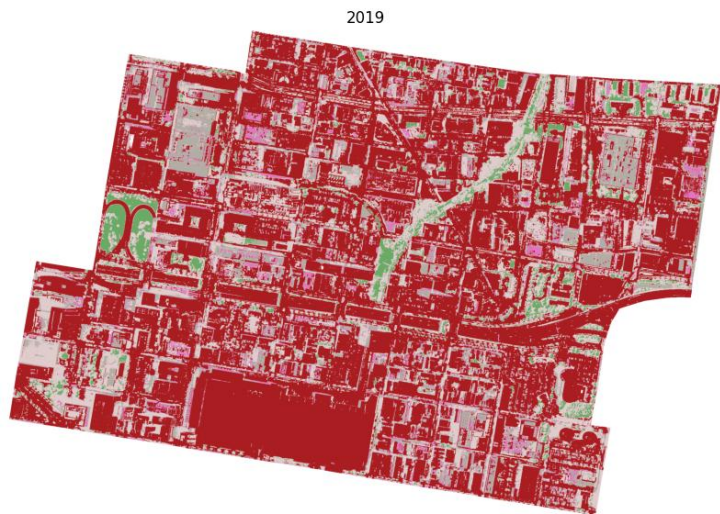
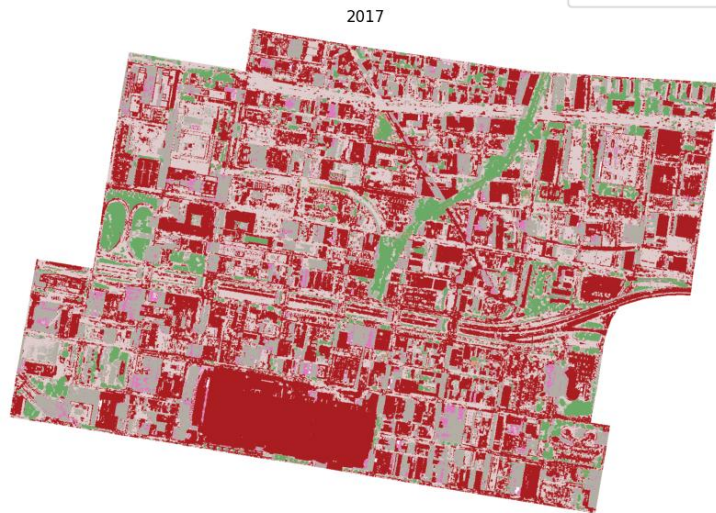
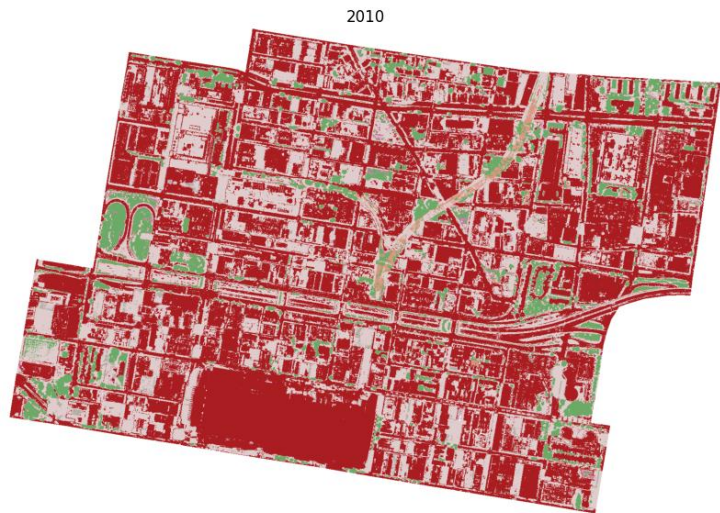
51.2%
K-NN

49.3%
Decision Tree

45.0%
Naïve Bayes

The model still needs improvement...

- Classes
- Barren Land
 - Developed Open Space
 - Buildings
 - Green Space
 - Developed Low Density
 - Other



Questions

- Could I build the model based on a well pre-trained one? My laptop runs toooooo slow...
- Any suggestions for the analysis? The study area?

Next Steps

- Improve model accuracy using neural network
- Interpret land cover changes with census information, NDVI distribution, and property price change

Research Question

Methodology

Results

Discussion



Thank you!

Reporter: Luming Xu
Instructor: Xiaojiang Li
2025-04-28

