

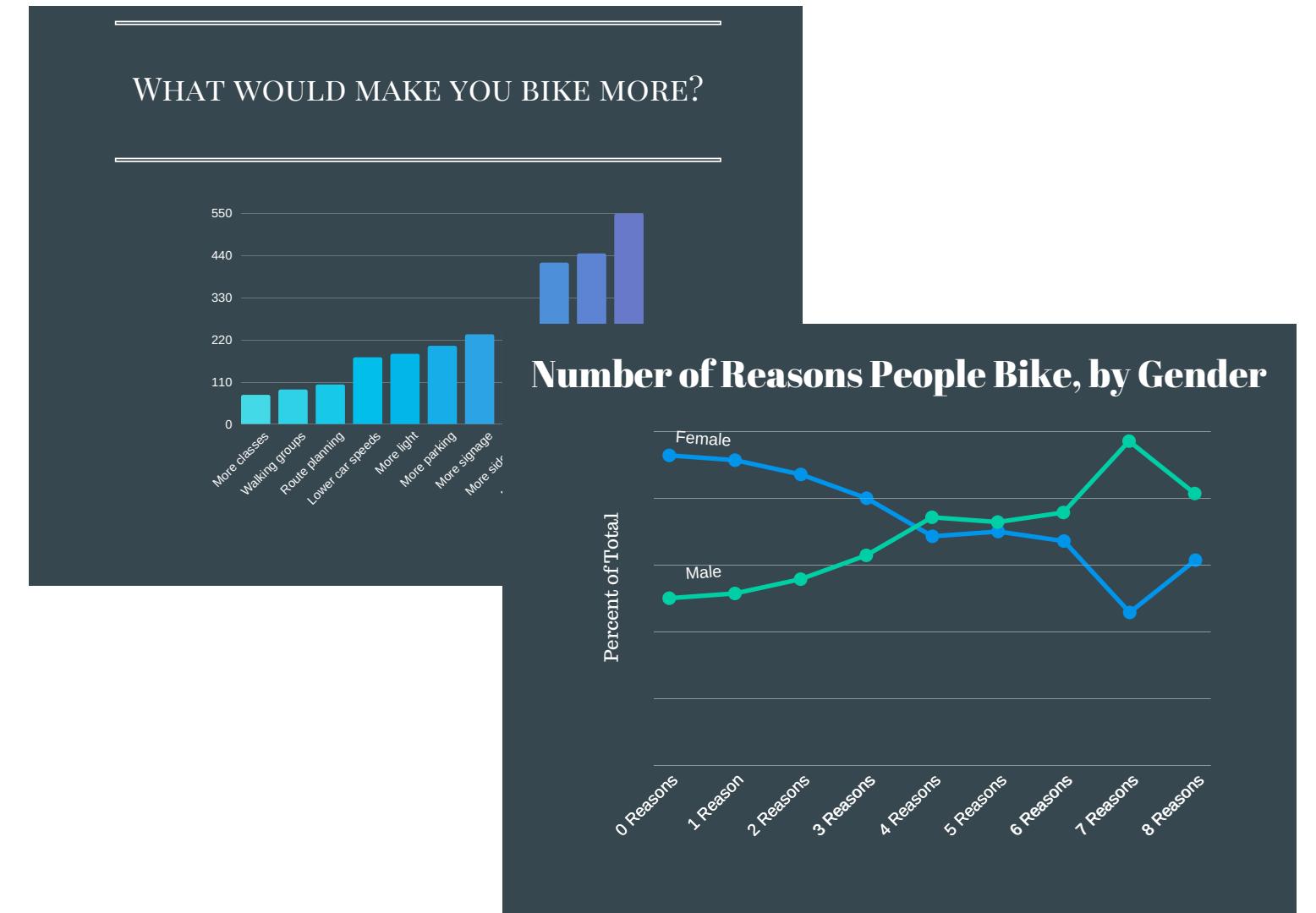
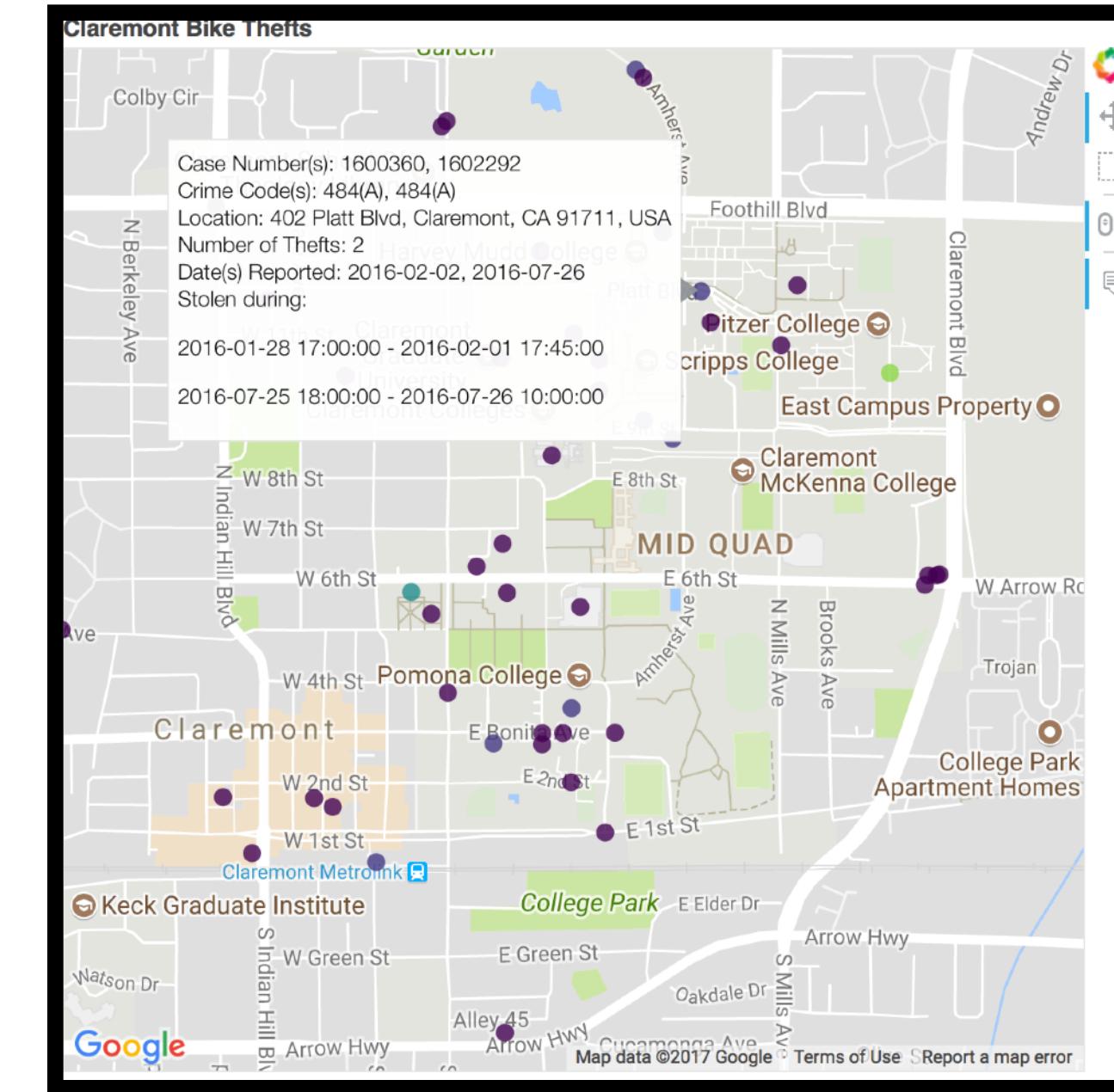
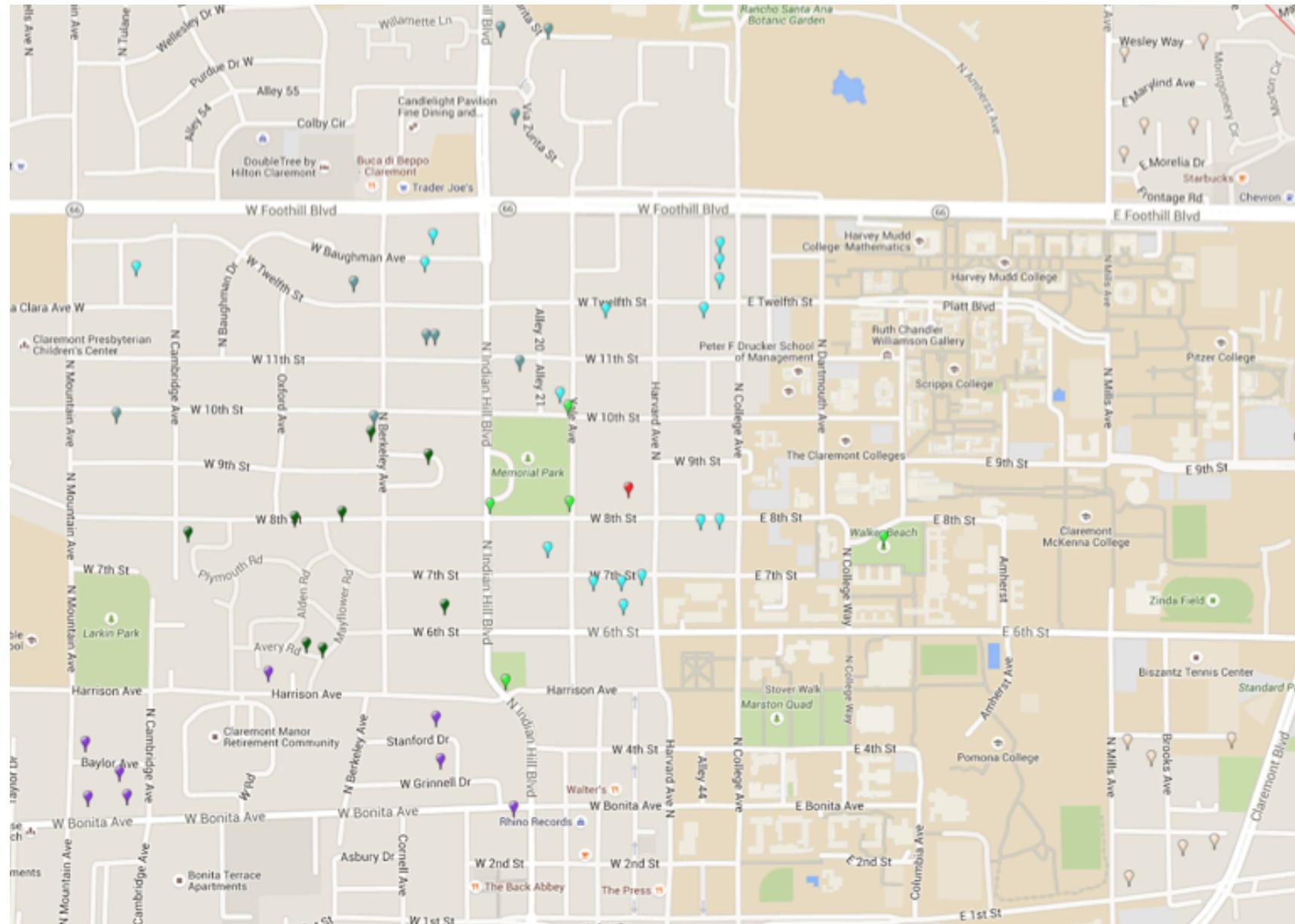
CS5: Intro CS

Week 0	Introduction to computation: CS, Python, and Picobot
Week 1	From data to information: strings, structures, and slicing
Week 2	CS's fundamental building blocks: <i>functions</i>
Week 3	Self-similarity as design strategy: <i>recursion</i>
Week 4	Top-down vs. bottom-up problem solving: analysis and synthesis
Week 5	Computation's physical building blocks: circuit design
Week 6	The nonliving world's native tongue: assembly language
Week 8	Iteration in Python: repetition through loops
Week 9	Serious structures: nested loops and dictionaries
Week 10	Self-defined structures: objects and classes
Week 11	Piecing everything together: large-scale problem solving
Week 12	Piecing everything together: final projects
Week 13	Theoretical CS: state-machine models of computation
Week 14	Theoretical CS: provably uncomputable vs. currently uncomputable functions

CS35: CS for Insight

- Builds on intro CS (in Python)
- Goal: Students feel comfortable piecing together existing tools to answer questions in their field.
- First offering: 46 students from 5 campuses.
Even split of class years, genders. 24 different majors.
- Topics: data as files/files as data; machine learning; feature engineering
- Final project: individual or in teams, self-chosen or from a list of suggestions

Community Engagement



Partners:

- Claremont city staff
- Claremont Senior Bike Group
- Claremont Pedestrian-Bicycle Advisory Council
- Claremont residents (parents)

- Campus safety

- Bike SGV

HARVEY MUDD COLLEGE

Understanding Impact

