

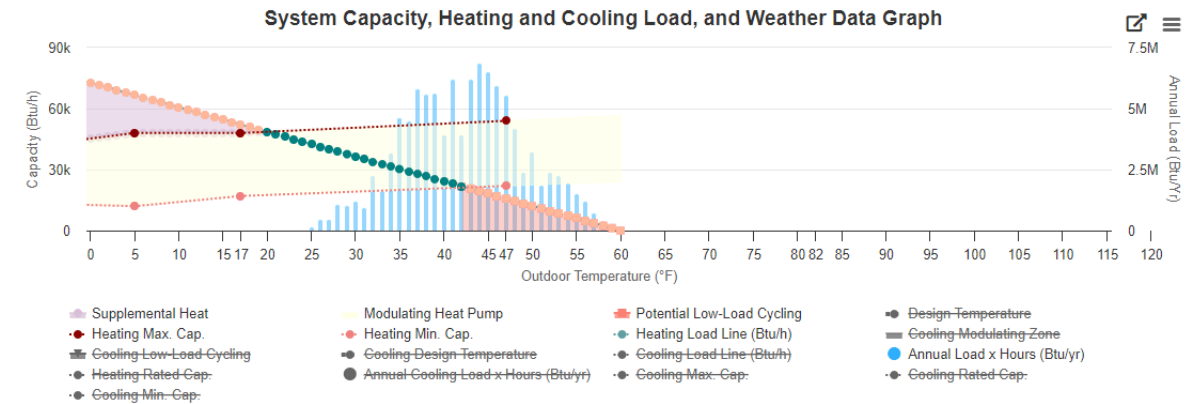
Michael Chen – Visualization of Heating/Cooling Demands

Supervisor: Dr. James Howison

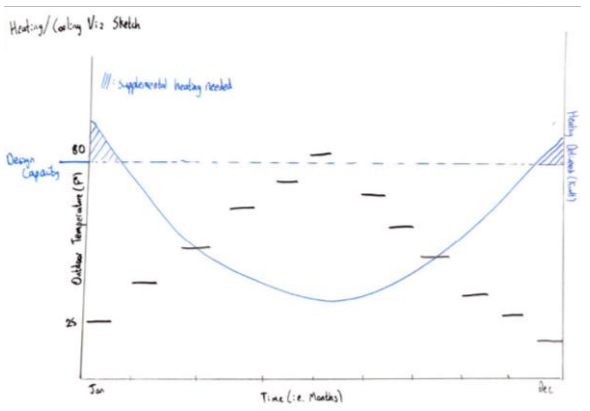
Motivation: properly sizing HVAC systems.

- “homes are operating at (...) 50 % of maximum capacity during the coldest hours (...) considerable spare capacity a consequence of oversizing or years of adding insulation” (Meier Et Al., 2019)
- Implications towards home sustainability, comfort, and energy usage.

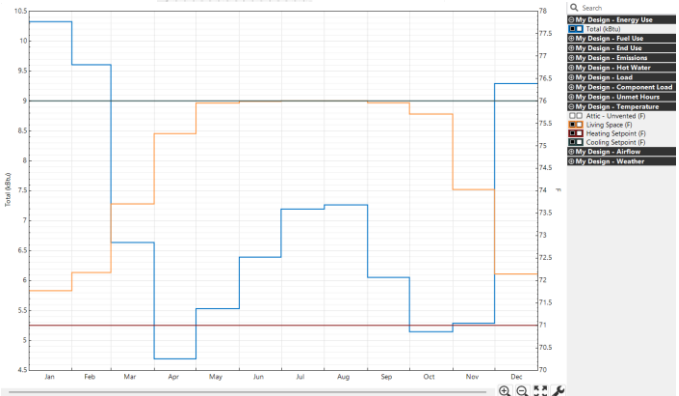
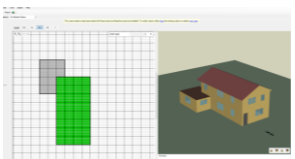
Current visualizations are unintuitive:



Solution: re-design in time series



Prototype → Simulation:



Next Steps:

- Data wrangling and refinement
- Model Generalization
- Collaboration

iSchool Course Relevance:

- I320D Data Eng.
- I310D HCDS
- I310U UX
- I305 Research