Modeling Pedestrian Activity For Safety Analysis in Minneapolis

Andrew Owen
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Project Overview

• Collect pedestrian counts, AADT, and collision data
• Analyze per-pedestrian collision risk
• Estimate modal traffic where counts are unavailable
• Re-analyze per-pedestrian collision risk
• Compare pedestrian safety between cities
Scope - Locations
• 1056 Minneapolis intersections with pedestrian counts 2000-2013
Methodology (Accessibility)
Predictive power – walking accessibility
Visualizing Centrality

How “central” is a place?
Visualizing Safety

Raw numbers of crashes
Visualizing Safety

Crashes weighted by pedestrian counts
Continuing work

• Map pedestrian safety based on estimated counts
• Extend analysis to other cities
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