

AwesomeBus

A visualization of public transportation in Seattle

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Motivation

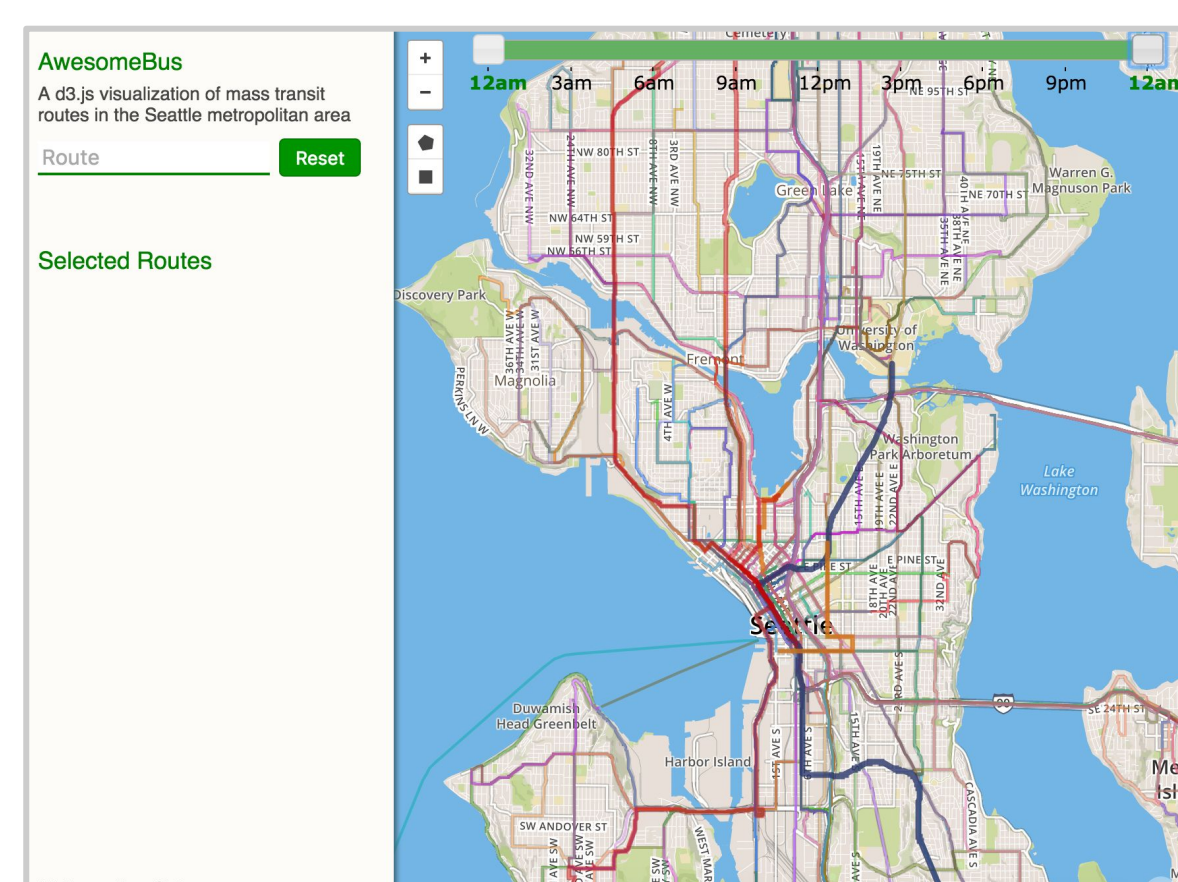
- **Google maps** is useful for planning *specific* point-to-point trips
- Metro and **Sound Transit timetable maps** only show abstract route shapes without geographical context
- **OneBusAway** provides helpful real-time arrival information for commuters who know their route and stop, but it does not encourage exploration
- Other, more niche public transit visualizations show more analytically-focused transit information, such as causes for rider unhappiness, or transit in relation to city funding

Goal: Help transit riders **discover** new routes and new possible destinations and make **exploration** of new transit routes intuitive and enticing to increase user understanding of Seattle's mass transit system

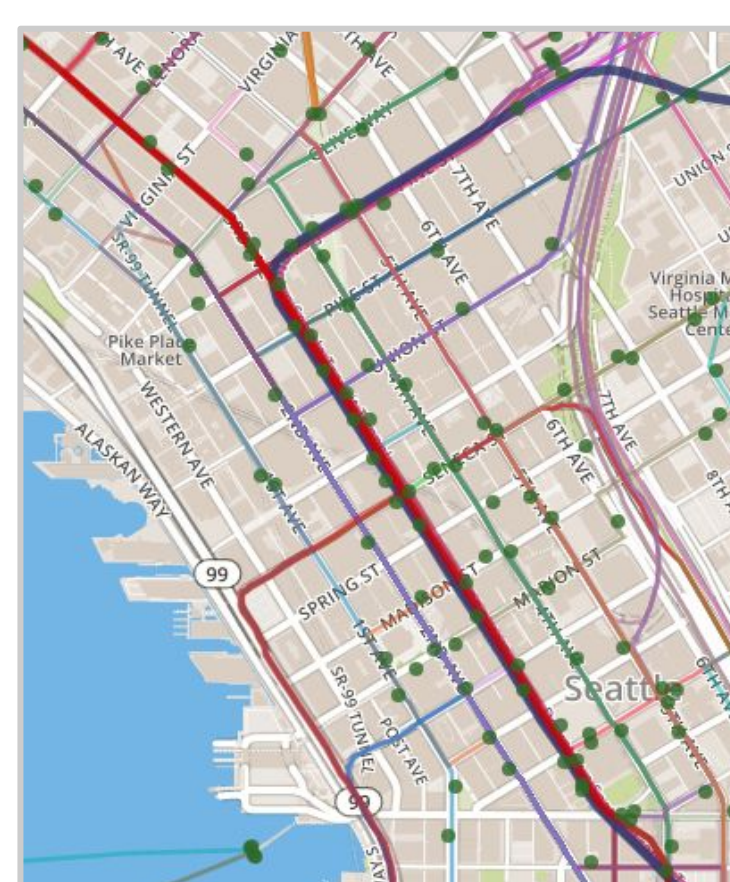
Audience

- Someone who has recently moved neighborhoods or is planning a move
- Someone who is new to Seattle
- Someone who is looking to change up their commute to use public transit
- Someone who wants to get between two neighborhoods but doesn't have an exact destination and is willing to walk (for example, a tourist)

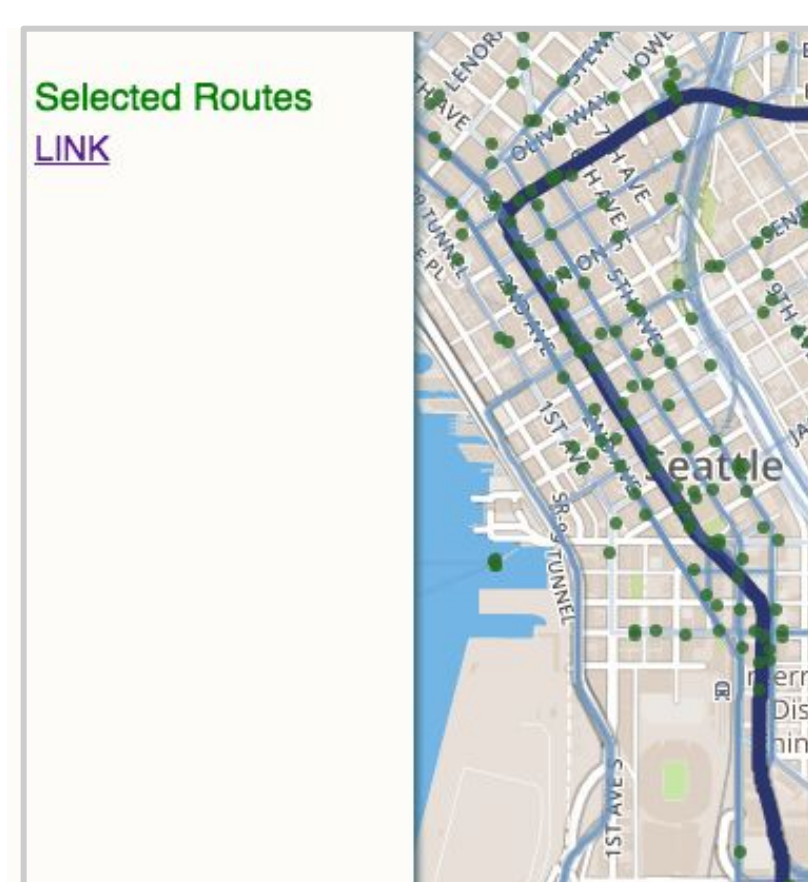
Features



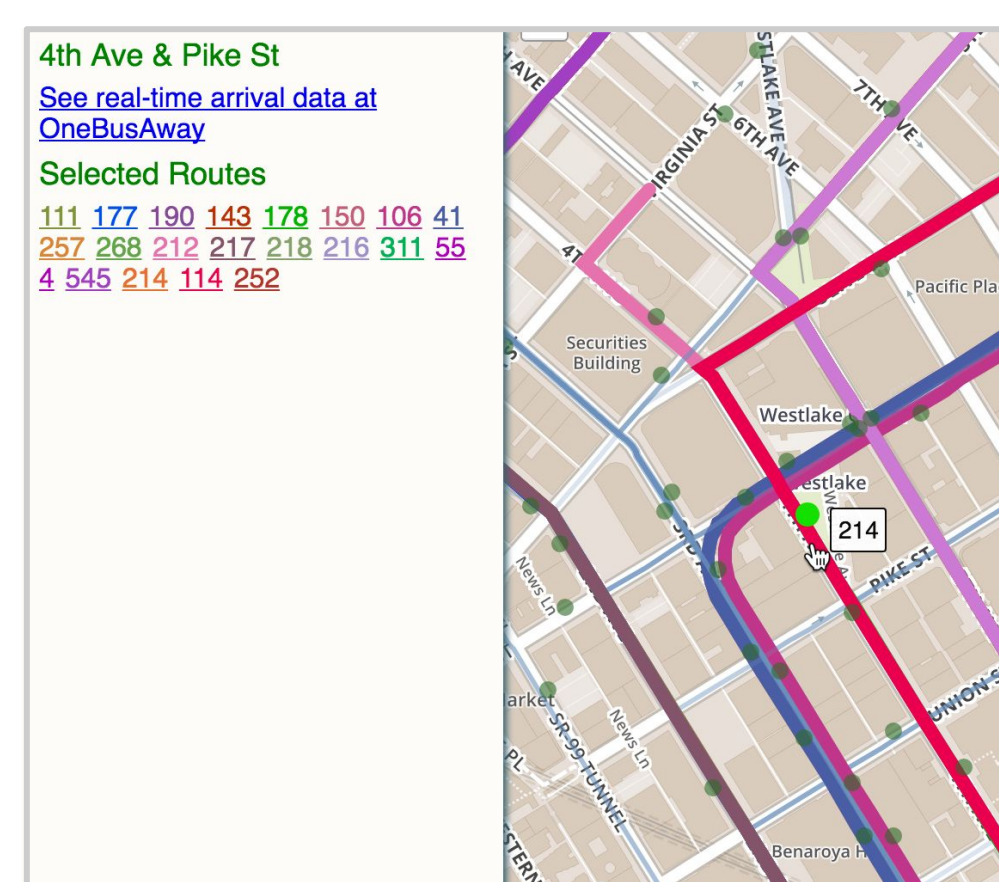
View all public transit routes in the Seattle area overlaid on a street map



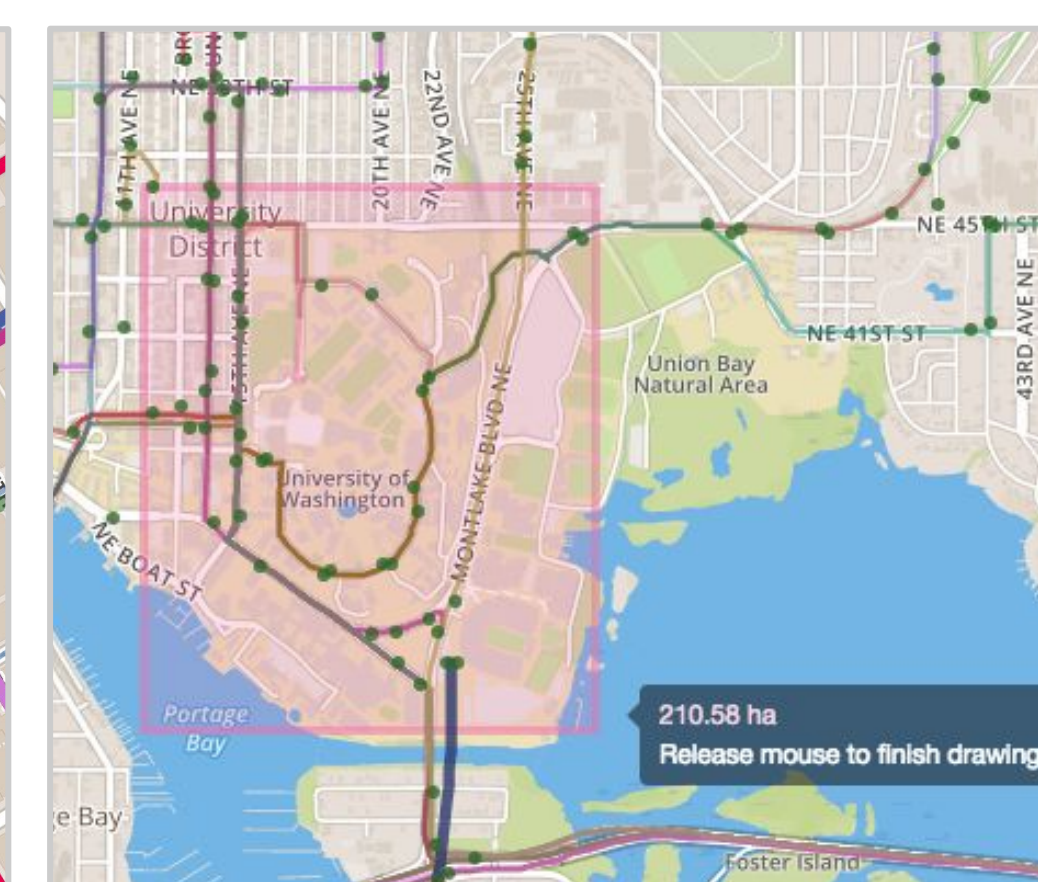
Pan and zoom in to see bus stops



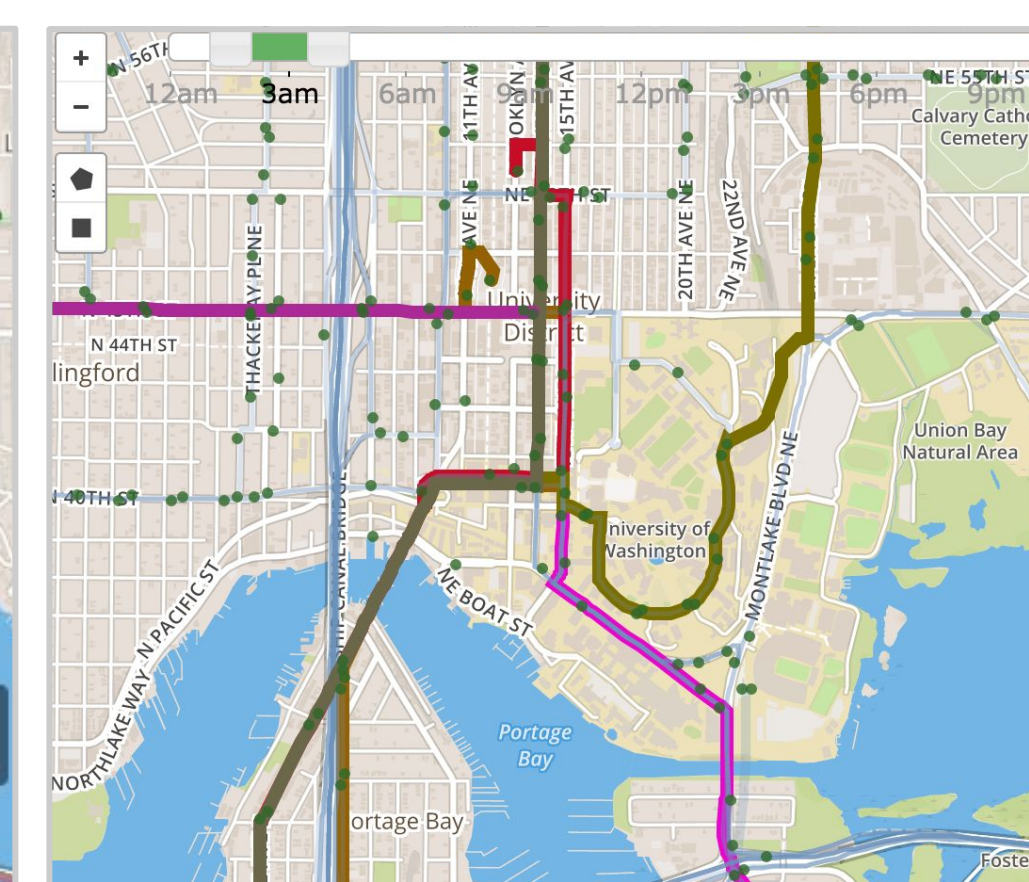
Select routes visually by clicking on them or with a search box by route number or name



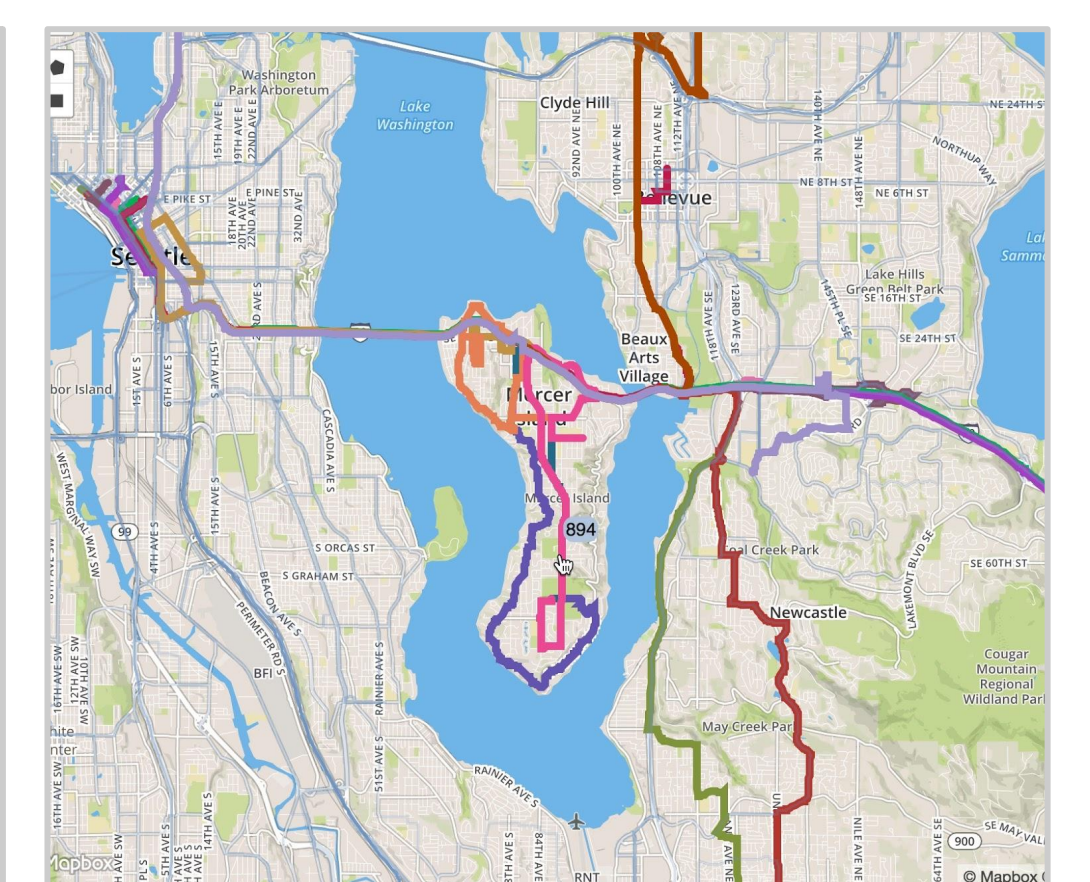
Click on a bus stop to select the routes that serve it. The sidebar displays links to schedules and real-time arrival data



Draw a polygon or rectangle on the screen to select all routes that pass through the shape



Use a slider to examine which routes run at certain times of the day



Double click on a route to see all the routes it intersects with

Visualization Techniques: Approach

Reduce the gulf of evaluation and the gulf of execution

- **Evaluation**
 - Visually separate routes using color
 - Decrease the luminance and opacity of deselected routes as well as change the color to a more neutral dark blue-gray
 - Display data on a geographically accurate street map
- **Execution**
 - Provide multiple options to select and filter routes (see **Features**)
 - Conventional map navigation controls
 - Display links to external transit resources in the sidebar

Future Work

- Incorporate timing data to show users typical travel times from a bus stop
- Show frequency of routes
- Show any significant gaps in service (ie, indicate commuter routes that only run in the morning and evening)
- Increase interaction with the sidebar: users should be able to use the sidebar to deselect routes or see schedule previews