TANNER REID PASSMORE, PH.D.

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EXPERIENCE

U.S. D.O.T. Bureau of Transportation Statistics: *Active Transportation Data Fellow*   Mar. 2025 — Aug. 2025

- Co-lead the administrative side of the National Collaboration on Bicycle, Pedestrian, and Accessibility Infrastructure Data
- Drafted an active transportation dasta specification in the same spirit as GTFS
- Found common ground on the data specification between private companies, non-profits, academia, and government agencies with differing motivations for collecting active transportation data
- Created a web scraping tool to aggregate 1000s of active transportation data attributes from over 60 municipal data sources through the ArcGIS REST and Socrata APIs
- Researched and assessed emerging technologies for creating active transportation datasets such through machine vision and AI that processed street imagery, satellite imagery, and Lidar

Georgia Institute of Technology: *Graduate Research Assistant*   Aug. 2019 — Dec. 2024

- Assisted with project scoping, proposal writing, designing research methodologies, and setting timelines for four research projects
- Authored and maintained the BikewaySim GitHub repository, a network modeling tool that uses machine learning to train a bicycle routing algorithm that can be used to assess the benefits of new cycling infrastructure
- Map-matched and processed trajectory data (over 28,000 GPS traces) with Python and SQL
- Improved code run-time through parallel processing and running scripts on a high-performance computing cluster
- Created dynamic web maps with Leaflet and static maps with QGIS to visualize research findings
- Wrangled and conflated large GIS datasets from OpenStreetMap, HERE, and municipalities to perform network analysis using GeoPandas, NetworkX, ArcGIS Network Analyst, and Osmnx
- Used Dijkstra's algorithm and the RAPTOR algorithm to create a bike-transit trip modeling tool
- Retrieved and processed GTFS data using the Transitland API
- Created linear regression, regression tree, and discrete choice models in R and Python for research projects
- Conducted literature reviews to synthesize past research findings
- Prepared and presented oral and poster presentations of research at conferences to a wide variety of audiences
- Drafted technical reports and research papers
- Prepared policy briefs that distilled technical research findings to a more general audience

Atlanta Regional Commission (ARC): *Bike Pedestrian Planning Intern*   Jan. 2019 — May 2019

- Updated the ARC's Regional Bicycle Facility Inventory, a GIS database documenting the location and attributes of all bicycle infrastructure in the Metro Atlanta Region
- Developed a data dictionary for the Regional Bicycle Facility Inventory and assisted in streamlining future updates to the inventory
- Analyzed regional connectivity in the Regional Bicycle Facility Inventory by calculating intersection density, buffering bicycling facilities to get miles of continuous bicycle facilities, and clipping by jurisdictional boundaries in ArcGIS

Georgia Department of Transportation (GDOT): *Bike and Pedestrian Program Intern*   Jul. 2017 — Jul. 2018

- Assessed GDOT concept reports for inclusion of bicycle, pedestrian, or transit infrastructure accommodations per GDOT's Complete Streets Policies
- Routed a cross-state bike route for AASHTO's US Bike Route System, a national network of tourism-centered bicycle routes

EDUCATION

Georgia Institute of Technology   Aug. 2015 — Dec. 2024

Ph.D. Civil Engineering GPA 3.82 (Dec. 2024) | M.S. Civil Engineering (Dec. 2021) | B.S. Civil Engineering (Dec. 2018)

SKILLS AND INTERESTS

Skills: Python | R | SQL | git | Databricks | QGIS | ArcGIS | Qualtrics | Adobe Illustrator and InDesign | MS Office | MS Power Automate
Knowledge: ubran analytics | complete streets design | network analysis | survey design | vision zero | tactical urbanism
Interests: maps | public transportation | urbanism | cycling | building community through bikes | camping | hiking

OUTREACH AND SERVICE

- **Davis Bike Collective:** *Volunteer Mechanic* (Feb. 2023 — Present)
- **California Transportation Commission Active Transportation Program (ATP):** *Volunteer ATP Application Evaluator* (Jul. 2024)
- **Institute of Transportation Engineers Georgia Tech:** *Treasurer* (Aug. 2020 — May 2021), *Secretary* (Aug. 2019 — May 2020)
- **Georgia Tech Starter Bikes:** *President* (Jan. 2022 — Dec. 2022), *Treasurer* (Aug. 2020 — May 2022)
- **Outdoor Recreation Georgia Tech (ORGT):** *President and Trip Leader of Bikepacking* (Jan. 2017 — Dec. 2022)