

Nate Wessel

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NateWessel.com, [GitHub](#), [LinkedIn](#)

Quantitative transport planning analyst and cartographer with 8 years experience developing open-source GIS applications and innovative data visualization techniques.

Education

- PhD**, Urban Planning 09/15 – 11/19
University of Toronto [Dissertation](#)
- MA**, Geography 09/13 – 06/15
University of Cincinnati [Thesis](#)
- Bachelor of Urban Planning** 09/07 – 06/12
DAAP, University of Cincinnati

Technical Skills

Expert: Python, SQL, R, JavaScript, D3, QGIS, PostGIS, Web development, Transport modelling

Proficient: Git, RegEx, Wordpress, Office & OpenOffice

Competent: Leaflet, Bash, ArcGIS

Publication & Speaking

- Regular speaker and panelist on transport issues since 2012, interviewed for newspapers, radio, books, and blogs.
- First author on 5 peer reviewed academic publications in GIScience, transport planning, and cartography; co-author on 2 additional peer reviewed publications ([Academic CV](#))
- Presenter at more than a dozen international conferences on cartography, planning, and transportation.
- Self-published a [Bike Map](#) (2014) and [Transit Map](#) (2011) of Cincinnati, Ohio, raising money for printing and distribution from foundations and sponsors.

Volunteer Leadership

Served on the boards of several non-profits in Cincinnati between 2008 and 2013, most notably *GLSEN Greater Cincinnati*. Responsibilities included recruiting, training and managing 100+ volunteers; overseeing all marketing and communications design; and coordinating \$50k in annual fundraising.

Work Experience

GIS Researcher 06/20 – Pres.

Asia Pacific Foundation of Canada

Developing and managing spatial datasets while building interactive online visual/cartographic experiences for both general and specialized audiences.

Contractor 12/19 – 08/20

Conveyal

Designing and developing automated integration tests for [transit accessibility analysis software](#) small remote development team.

Research Assistant 09/15 – 02/19

University of Toronto

– Led and assisted with numerous transport-related research projects including travel behaviour studies, time geographic analysis, and models of transit reliability.

– Conceived of, designed, and coded novel open-source GIS applications in Python, R, SQL, etc. incorporating techniques from machine learning, statistics, and graph theory.

– Collaborated internationally, presenting at numerous conferences and providing technical research assistance.

Course Instructor 09/18 – 12/18

University of Toronto Scarborough

Designed and taught course on [Spatial Analysis](#) to 20 third and fourth year undergrad GIS majors. Gave 10 lectures; wrote and administered 2 exams; supervised a TA; designed and administered 5 assignments.

Teaching Assistant 09/13 – 04/19

University of Toronto & University of Cincinnati

Throughout graduate school I worked as a teaching assistant for 8 different graduate and undergraduate courses in GIS, geography, planning, and Earth science.

Cartographer / Designer 06/12 – 09/15

Vesalius Design (self-employed)

Worked freelance on numerous cartography and data visualisation projects, mostly for the *Cincinnati Chamber of Commerce*. Also consulted on general design services including web design, graphic design, and fashion design.

Office Automation Clerk 01/12 – 06/12

USDOT, Bureau of Transportation Statistics

Developed a prototype web-based data API in PHP and demonstrated basic JavaScript data visualisations to senior management. Assisted in the redesign/wireframing of [bts.gov](#) and documented internal data workflow for the *Office of Airline Information*.