

# Nate Wessel

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Toronto, Ontario, M6K 2T8

Transport/planning analyst and cartographer with 8 years experience developing GIS applications and innovative data visualization techniques. Years of experience managing projects and publishing for print and web.

## Education

**PhD** in Urban Planning ..... 09/15 – 11/19

*University of Toronto* ..... [Dissertation](#)

**MA** in Geography ..... 09/13 – 06/15

*University of Cincinnati* ..... [Thesis](#)

**Bachelor of Urban Planning** ..... 09/07 – 06/12

*DAAP, University of Cincinnati*

## Technical Skills

**Expert:** QGIS, ArcMap, Python, SQL, PostGIS, Javascript, R, L<sup>A</sup>T<sub>E</sub>X, PHP, HTML, CSS, Inkscape, GIMP

**Proficient:** Git, RegEx, Machine Learning, Wordpress, Office & OpenOffice

**Competent:** D3, GRASS, Leaflet, Bash

## 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 dozens of 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

**Contractor** ..... 12/19 – Pres.

*Conveyal*

Designing tests for a [transit accessibility analysis software](#) alongside small remote development team. Writing documentation, researching automated testing frameworks, identifying potential improvements to user interface.

**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 assistance to research at the *University of Oxford*, *University of Cincinnati*, and *University of South Florida*.

**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 classes 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 bespoke 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*.