# Carter Wang

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2903 Southington Road Shaker Heights, OH, 44120

Professional Experience

## Case Western Reserve University, Cleveland, OH

January 2015 – Present

Research Assistant with the Center on Urban Poverty and Community Development

- Combined data sets to predict residential vacancy using pandas and scikit-learn.
- Built visualizations with D3.js and ETL processes in Python.
- Integrated data sets for studies measuring the impact residential vacancy has on crime and home equity.

## Central Intelligence Agency, Washington D.C.

November 2013 – March 2014

Data Scientist

- Developed computational algorithms and statistical methods to discover patterns and relationships in large volumes of data.
- Communicated conclusions to a lay audience in order to inform US decision makers.

## Massachusetts Institute of Technology, Cambridge, MA

August 2011 – June 2013

Graduate Research Assistant

- Applied statistical models of congestion to microscopic traffic simulations using simulationbased optimization techniques to address signal coordination in urban networks.
- Statistical queueing model built in MATLAB and simulated in AIMSUN in conjunction with Java and Python scripts.

EDUCATION

### Massachusetts Institute of Technology, Cambridge, MA

August 2011 – June 2013

Master of Science in Transportation

4.6/5.0 GPA overall

• Coursework included nonlinear optimization, logistical and transport planning, and transportation systems and economics.

#### Rice University, Houston, TX

August 2007 – May 2011

Bachelor of Arts in Computational and Applied Mathematics

3.75/4.00 GPA overall, 3.77/4.00 GPA in major

• Coursework included computational science, economic modeling and public policy, statistics, graph theory, and linear programming.

#### Projects

#### Congress Says

April 2014

• Bot that tweets the most unique three words in last day's Congressional record, sorted by term frequency-inverse document frequency, built with Python and using Google AppEngine.

#### Population vs. Distance

April 2015

• Web application that plots population density of Census tracts against the distance to a geocoded user input, limited to the United States and built with Python and Flask.

### VOLUNTEERING

Delivery Lead with Open Cleveland, a Code for America Brigade, September 2014 – Present Webmaster, Cleveland Disc Association, December 2014 – Present Math Tutor at Shaker Heights High School, various 2013 – Present

## Programming Languages

Proficient at MATLAB and Python (and numerical libraries)

Exposure to Git, R, Java, Javascript, Leaflet, js, D3. js, HTML, CSS, C++, SQL

Hobbies

Saxophone, longform journalism, trivia, and ultimate frisbee