

Funded Ph.D. Student in Urban Analytics Research

Applications are invited for a doctoral research assistant (RA) position in the Department of Geography & Earth Sciences at the University of North Carolina at Charlotte with an anticipated start date Fall 2024. The [National Science Foundation project](#) funded position will support the investigation of the interconnected roles of amenities, residential preferences, mortgage lending practices, and real estate advertisements in neighborhood change processes.

Responsibilities

The RA will assist the PIs, Drs. Isabelle Nilsson (UNC Charlotte) and Elizabeth Delmelle (UPenn), with predicting changes in the income and racial composition of mortgage applicants in neighborhoods over time based on the words used in property advertisements using a combination of novel, theory-guided natural language processing techniques, machine learning, and classic statistical methods. The RA's duties include data processing and analysis and assisting the PIs with developing an online textbook on emerging applications of natural language processing techniques for spatial problems.

Minimum qualifications:

- Master's degree in Geography, Planning, Economics, Data Science, or related field
- Admission into the [Geography PhD](#) or [Public Policy PhD program](#) at UNC Charlotte
- Strong training in quantitative methods
- Research interest in urban and/or housing issues
- Familiarity with at least one programming language (Python, R, etc.)

Desired qualifications:

- Experience with SQL and big data is highly desirable
- Excellent written and verbal communication skills
- Experience with statistical modeling and/or machine learning

How to apply

Prospective applicants are highly encouraged to contact Dr. Isabelle Nilsson (inilss1@charlotte.edu) with (i) a letter about research interests and experience, (2) a CV, (3) unofficial transcripts, and (4) writing samples and/or publications if applicable, by February 15, 2024.

