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Robust, Responsive, and Integrated Urban Mobility Systems

Postdoctoral Associate Position

Massachusetts Institute of Technology

April 2023

Position Overview

The JTL Urban Mobility and Transit Lab, an interdisciplinary research group at the Massachusetts Institute of Technology (MIT), is searching for a postdoctoral associate to join around September 2023. The <u>JTL Urban Mobility Lab</u> integrates behavioral and computational thinking in urban mobility to shape travel behavior, design mobility systems and ventures, and reform transportation policies. A particular focus of our group is to design robust, responsive and integrated multimodal urban mobility systems based on advanced data analytics and artificial intelligence, behavioral science, and transportation technology, and building on the <u>MIT Transit Lab's</u> decades of collaboration with leading global transportation agencies and operators. Professor Jinhua Zhao leads the research lab as well as the <u>MIT Mobility Initiative</u>, coalescing transportation research, education, entrepreneurship, and civic engagement across the Institute.

Please apply directly at <u>MIT JTL Postdoc Application 2023</u>. The review of applications will begin immediately and continue on a rolling basis until the position is filled. A commitment of at least two years for this appointment is expected. Information on salary and benefits is available <u>here</u>.

The Postdoctoral Associate will report to Professor Jinhua Zhao and work closely with Jinhua as well as researchers and students at the lab. We will develop an individualized mentoring plan for the postdoc.

Qualifications

- Ph.D. in civil engineering, urban planning, computer science, operation research, industrial engineering, or a related field by the start of the appointment
- Experience with transportation systems, spatial and network analysis, optimization, machine learning, statistics, econometrics, large-scale datasets, and cloud computing
- Record of rigorous research that can shape the future of urban transportation and mobility
- Strong publication record and communication skills

Principal Duties and Responsibilities

- Exercise independent judgment in designing and implementing research projects
- Collaborate and co-author journal articles with research staff and graduate students
- Collaborate and co-author proposals for funding internal and external to MIT
- Co-supervise graduate and undergraduate students at MIT
- Manage research projects with sponsors (e.g. federal departments such as NSF, US DOE, US DOT, global transportation companies, industry consortia, municipal governments and agencies)
- Manage the lab's data and computation infrastructure
- Perform other duties as needed

MIT is an equal employment opportunity employer. We value diversity and strongly encourage applications from individuals from all identities and backgrounds. All qualified applicants will receive equitable consideration for employment based on their experience and qualifications, and will not be discriminated against on the basis of race, color, sex, sexual orientation, gender identity, religion, disability, age, genetic information, veteran status, ancestry, or national or ethnic origin. See MIT's <u>full policy</u> on nondiscrimination. <u>Know your rights.</u>

Review Process

Step 1: Interested candidates can submit an application, with their CV and an optional cover letter, directly at <u>MIT JTL Postdoc Application 2023</u>

Step 2: After an initial screening, shortlisted candidates will be contacted to submit the following documents:

- 1. A 2-page* Statement of Research (*excluding references).
- 2. One or two published papers/preprints that the candidate *deems most* representative of their work.
- 3. A list of 3~5 papers that interests the candidate the most from the <u>lab's recent</u> <u>publications</u> and *1-paragraph reasoning of this selection*.
- 4. A coding sample (GitHub/GitLab or a notebook/markdown format).
- 5. Three letters of recommendation

Step 3: Finalists will be invited to give a 20-minute presentation to our research group, followed by a series of 1-on-1 interviews with senior lab members.

Step 4: We will inform the successful candidates soon after all the presentations and interviews.