URBANLABS
UCHICAGO
CRIME
LAB

Science in Service
of Cities.

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Position Title: Embedded Data Scientist

About the Unit:

The U.S. has the highest rate of homicide among any developed nation in the world. The U.S. also has by far the highest rate of incarceration among any high-income nation, with over 2.2 million people currently incarcerated nationwide. Both of these problems disproportionately affect our most economically disadvantaged and socially marginalized communities. Taken together, all levels of government in the U.S. spend well over $200 billion per year on the criminal justice system (including police, courts, and corrections). Yet we have made little long-term progress on these problems. The homicide rate in America today is about the same as it was in 1950, or even 1900. This stands in stark contrast to the enormous progress the U.S. has made toward reducing mortality rates from almost every other leading cause of death. One key reason we have not made more progress on these problems is a striking lack of rigorous evidence about what actually works, for whom, and why. The University of Chicago Crime Lab aims to change this by doing the most rigorous research possible in close collaboration with city government and non-profits. Using randomized controlled trials, insights from behavioral economics, and predictive analytics, the Crime Lab partners with government agencies and frontline practitioners to help cities identify, design, and test the policies and programs with the greatest potential to reduce crime, improve education, and maximize the social good per dollar spent. The Crime Lab is part of the University of Chicago's Urban Labs, a set of highly synergistic labs focused on undertaking inquiry and having impact on five essential dimensions of urban life: crime, education, health, poverty, and energy & environment. For more information about the Crime and Education Lab and the Urban Labs, please visit https://urbanlabs.uchicago.edu/.

The Role

The University of Chicago Crime Lab team is seeking a data scientist to work directly with the Chicago Police Department Bureau of Technical Services. Under the supervision of the Chief of Technology, the data scientist will utilize terabytes of structured data and contribute directly to statistical methodology and technology that enable the department to better understand crime and outcomes of interventions. This role will also help support localized crime analysis being done in the Department's highest crime districts through the Strategic Decision Support Centers (SDSC). See below for more information on the SDSC initiative:
https://urbanlabs.uchicago.edu/projects/strategic-decision-support-centers

Responsibilities

- Become a go-to source of knowledge for CPD's vast database of information, with the ability to quickly identify potential data sources for projects.

- Contributes to the design and implementation of an efficient and reproducible data processing pipeline.
- Builds and rigorously evaluates statistical models using best practices of machine learning and statistical inference.
- Prepares project memos, summaries, presentations, reports, and other work products for dissemination targeting both policymakers, academic researchers, and other stakeholders, as needed.

Competencies:
- Advanced knowledge of computer science techniques.
- Strong interpersonal skills required.
- Strong initiative and a resourceful approach to problem solving and learning required.
- Ability to work independently and as part of a team in a fast-paced environment required.
- Expert database skills
- Proficiency in R and/or Python
- Strong attention to detail with superb analytical and organization skills required.
- Excellent written and verbal communication skills, with the ability to present data in a simple and straightforward way for non-technical audiences required.

Education:
- Bachelor's or master's degree in computer science, statistics, data science, economics or a closely related field required

Technical Knowledge or Skills:
- Proficiency with statistical data analysis and machine learning using Python or R is required. The ability to work in both is preferred.
- Bonus Points for prior analytical application development experience in Flask, Django, or R Shiny
- Minimum 2 years related work experience required (experience gained in school counts towards requirement)
- Experience working with data to guide decision-making in public policy
- Experience working with large and complex datasets strongly preferred

Required Documents:
- Resume
- Cover letter
- Unofficial transcripts

- A sample of data work, such as a final report for a class project, link to a GitHub repo, or blog post.

To Apply: Please submit a resume, cover letter, unofficial transcripts, and a sample of data work, to UChicago's Workday system, search for requisition **JR01807**. Please find instructions on how to access the application below. **NOTE:** When applying, all required documents MUST be uploaded under the Resume/CV section of the application

- **Statement on diversity, equity, and inclusion**: The University of Chicago Urban Labs is committed to fostering a diverse, equitable, and inclusive environment for our staff and partners and we encourage applications from individuals whose backgrounds or interests align with this commitment. In your cover letter, please describe your perspective and experiences on diversity or evidence of how you have come to understand the barriers faced by historically and currently marginalized groups.
- If you have **questions about the Workday application system**, please contact: https://uchicago.service-now.com/sso?id=ssc_sc_cat_item&sys_id=cf359d671316660030c0bcaf3244b02d.
- If you **have an active UChicago Workday employee account**, you will need to complete the Internal Candidate application process. Internal Candidate instructions: Log into Workday and select the career worklet.
- **External Candidates** should apply to the specific Lab at https://uchicago.wd5.myworkdayjobs.com/en-US/External

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