Gabriel Barrett

Urban Planning and Computer Science Student at MIT

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EXPERIENCE

WMATA (DC METRO) | PERFORMANCE ANALYST INTERN
June 2022 - Present | Washington, DC

- → Design algorithm in R that creates a network graph of the metro system. Use graph to develop a baseline matrix of origin-destination pair expected run times to measure rail on time performance
- → Study equity initiatives from other US transit agencies to gauge WMATA's progress
- → Automate process of retrieving bus and rail safety data from SQL databases to add to benchmarking dashboard built with PowerBI

MIT CITY FORM LAB | UNDERGRADUATE RESEARCHER
February 2022 - June 2022 | Cambridge, MA

- → Modeled pedestrian flow around Los Angeles Transit stations using Rhino3D to add to report on overall transit accessibility of the LA Metro system
- → Assisted validation process for computer vision model that identifies sidewalks, roads, and crosswalks to create pedestrian network

MASSACHUSETTS DEPARTMENT OF ENERGY RESOURCES | POLICY ANALYST INTERN
June 2021 - August 2021 | Boston, MA (Remote)

- → Studied electric grid modernization plans around the country to create case study sheets to guide DOER policy recommendations
- → Developed presentation on the benefits and consequences of allowing for the intervention public utilities into the private electric vehicle market

ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES | TRANSPORTATION PLANNING INTERN
June 2021 - August 2021 | Arlington, VA

- → Coordinated interagency meetings to collect input on the county's bike infrastructure benchmarks and compiled findings into a one pager
- → Reviewed and summarized public feedback for bike network in rapidly growing National Landing BID

METROPOLITAN AREA PLANNING COUNCIL | ECONOMIC DEVELOPMENT INTERN
March 2021 - June 2021 | Boston, MA (Remote)

- → Wrote program to gather local business information in certain central business districts to develop post pandemic recovery plans
- → Performed case studies on nationwide small business assistance programs to help local woman- and minority-owned businesses

MOVE MINNESOTA DATA SCIENCE INTERN
Sep 2020 - Jan 2021 | St. Paul, MN (Remote)

- → Drafted a report on the effects of the Minneapolis parking minimum policy on climate pollution, housing availability, and city expenditures
- → Wrote brief fact sheets explaining how transit access intersects with social issues such as economic mobility, racial equity, and affordable housing

MIT LIVING WAGE CALCULATOR | UNDERGRADUATE RESEARCHER
June 2020 - August 2020 | Cambridge, MA (Remote)

- → Collected and performed spatial analysis on nationwide childcare cost data

EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
MASTER IN CITY PLANNING
Expected Jun 2024 | Cambridge, MA

S.B. URBAN SCIENCE AND PLANNING WITH COMPUTER SCIENCE
Expected Jun 2023 | Cambridge, MA
Spanish Studies Minor
GPA: 5.0 / 5.0

SKILLS

PROGRAMMING

Proficient:
Python • Java

Experienced:
R • LaTeX

Familiar:
JavaScript • HTML

LIBRARIES/FRAMEWORKS

Pandas • Django • PyTorch

SOFTWARE

QGIS • ArcGIS • Rhino3D • Tableau • Excel

LANGUAGES
English (Native)
Spanish (Fluent)

COURSEWORK

Spatial Analysis
Machine Learning
Pedestrian Modeling
Statistics and Data Analysis
Software Construction
Algorithms
Public Policy

INTERESTS

Maps and Map-making • Basketball • Public Transit • Playing Saxophone • History