

# Yafate Desta

desta@umich.edu | (470) 819-6253  
www.linkedin.com/in/yafatedesta

## Education

### University of Michigan

*Bachelor of Science in Civil Engineering, Minor in Mathematics*

Relevant Coursework: Statics and Dynamics, Thermodynamics, Transportation Engineering, Numerical Methods

**Ann Arbor, MI**

May 2027

### University of Navarra

*Study Abroad*

Relevant Coursework: Project Management, Entrepreneurship in Engineering

**San Sebastian, Spain**

Feb 2024

## Project Experience

### Umich Transit Authority - Rail Transportation Project

*Team Member*

**Ann Arbor, MI**

Jan-Apr 2024

- Designed and simulated a Light Rail Transit (LRT) system using AnyLogic to improve transportation efficiency between Central and North Campus, reducing travel time by 70% compared to existing bus systems
- Conducted route optimization, considering environmental impact, cost, and safety, and aligned the proposed route with the University's Campus Plan 2050
- Collaborated with a multidisciplinary team to analyze design requirements, perform simulations, and present a cost-effective solution capable of transporting 2,700 passengers per hour

### Steel Bridge Team

*Design Lead*

**Ann Arbor, MI**

Sept-Dec 2024

- Designed a small-scale steel bridge using SAP2000, adhering to strict AISC competition rules, including load-bearing requirements, material constraints, and dimensional specifications
- Learned and applied welding techniques to fabricate steel bridge components, ensuring precision and structural integrity for competition-ready designs
- Collaborated with teammates to optimize bridge design for strength and efficiency, achieving minimal deflection under a 250-pound load during testing

## Research Experience

### InfrastructureForAll Research Lab

*Travel Behavior Research Assistant*

**Ann Arbor, MI**

Sept-Dec 2024

- Conducted research to integrate human-centered performance metrics into transportation planning, utilizing both passive and active data streams to analyze user behavior in multi-modal transportation systems
- Investigated the interplay between behavioral trends, built environments, and demographic factors to improve user-centered outcomes in infrastructure design and planning

## Leadership Experience

### Michigan Institute of Transportation

*Treasurer*

**Ann Arbor, MI**

Present

- Secured \$18,000+ in funding to support student attendance at the 2025 Transportation Research Board (TRB) Annual Meeting, enabling participation for 20 students
- Managed the organization's budget, including allocating funds for travel, accommodations, and conference expenses, ensuring financial accessibility for undergraduate and graduate students
- Played a key leadership role in fostering diversity and inclusion by prioritizing funding for underrepresented students, enhancing their access to cutting-edge research and professional development opportunities

## Additional

- Technical Skills: Python, CAD, AutoCad, C++, MATLAB, Engineering Drawings, SAP2000, AnyLogic
- Activities: NSBE, MI-LSAMP, University of Michigan M-STEM Academy, Ronald McDonald House Charity
- Hobbies/Interests: Michigan Running Club, Music Production, Coding Projects