

# Gadisa Merdassa

## STRUCTURAL ENGINEER

Denver, CO | Phone number - available upon request | [gadisawaktola@gmail.com](mailto:gadisawaktola@gmail.com) | LinkedIn: [gadisaw1](#)

## Work Experience

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### RS&H INC | Structural Engineering Intern from Jun 2023 – December 2024

- Designed cantilever retaining wall using CDOT Bridge Design Manual and AASHTO LRFD Bridge Design Specifications guidelines.
- Rated 1-3 celled CBCs for CDOT projects using CDOT Bridge Rating Manual.
- Calculated quantities of six span bridge superstructure.
- Independently designed moment slab for following AASHTO LRFD Bridge Design Specifications guidelines.
- Rated multiple steel girder system bridges of CDOT projects using CDOT Bridge Rating Manual.
- Designed hammer head pier using AASHTO LRFD Bridge Design Specifications.
- Rated multiple slab bridges for TxDOT using TxDOT Bridge Inspection Manual.

### Ethiopian Roads Authority | Project Engineer from Jan 2018-Feb 2020

- Analyzed landslide protection project of major highway.
- Analyzed and calculated maintenance needs of major highways.
- Planned, coordinated and recommended budgeting of maintenance of road projects.
- Administered consultancy contract of Asphalt overlay project.
- Reviewed design drawings and specifications of asphalt overlay project.
- Led condition survey of road projects.

### Engineering Corporation of Oromia | Junior Highway Design Engineer from Oct 2016-Dec 2018

- Performed feasibility Study of access road.
- Independently designed slab bridges.
- Designed Drainage structures across access road to dam project.
- Participated in preparation of company-specific road design guidelines.
- Trained on project management and contract administration of construction projects.

## Education

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**Ph.D. student at University of Colorado Boulder** in Structural Engineering & Structural mechanics from Aug 2023 – present

**Master of Science from University of Colorado Boulder** in Civil (Structural) Engineering from Aug 2021 – May 2023

**Bachelor of Science from Hawassa University** in Civil Engineering from Nov 2011 – Jul 2016

## Skills

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- **Software:** SAP2000, AASHTOware BrR, MATHCAD, MicroStation, AutoDesk AtoCAD.
- **Codes:** AASHTO 8<sup>th</sup> and 9<sup>th</sup> editions, ACI-318, ASCE 7, IBC 2018, CDOT BDM, CDOT BRM, NDS.
- **Coding languages:** MATLAB, Python, LaTeX.

## Certifications and licenses

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- Engineer in Training (EIT) in Colorado from May 2021 to present.
- Working on Colorado PE Civil (Structural) to take by the end of 2025.

## Major courses taken

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- Design of Steel structures
- Advanced topics in steel design
- Advanced concrete design (Prestressed concrete)
- Design of Masonry structures
- Design of Wood structures
- Earthquake Engineering
- Matrix Structural Analysis
- Advanced Mechanics of Materials I and II
- Dynamics of Structures
- Finite Element Analysis

## Projects (located in the USA)

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1. C-470 Trail and University Boulevard Pedestrian Grade Separation bridge project
2. I-70/Picadilly Design-Build project
3. CDOT "2023 off system Load Ratings" project
4. Dransfeldt Road Extension Final Design project
5. North I-25 Express Lane MIRA Segments 4 and 5 project
6. CDOT FY24 Off-System Bridge Load Rating Updates project
7. C: TxDOT Bridg Insp 2022 - WA5 Beaumont project (TxDOT project).