

Mike Du Bose, EIT

Phone: 303-818-7943

Email: mikesdubose@gmail.com

Portland, OR

Education

Portland State University

Sept. 2018 – Expected June 2021

Degree: BS Civil Engineering with Honors, Minor in Mathematics | GPA: 3.96

Portland Community College

Jan. 2015 – Sept. 2018

Degree Earned: General Associates with Honors | GPA: 3.93

Societies/Activities: CEE Honors Program, American Society of Civil Engineers, Engineers Without Borders, Undergraduate Research Assistant, Engineering & Calculus Teaching Assistant, PCC Cascade Math Club

Relevant Classes: Numerical Methods for Water Resources Engineering, GIS for Environmental & Engineering Applications, Unit Operations in Environmental Engineering, Water Resource Engineering, Fluid Mechanics, Hydraulics, Spatial Analysis (CAD), Soil Mechanics, Applied Statistics for Scientists & Engineers

Work Experience

Undergraduate Research Assistant/Honors Thesis – CE-Qual-W2 Model Analyst

Dec. 2020 – Present

- Prepared inputs and parameters for a CE-Qual-W2 model to analyze potential outcomes and scenarios for massive oil and liquid fuel spills into riverine systems.
- Compiled a literature review of liquid fuel constituents, characteristics, fate and transport in freshwater.
- Calculated the constituent decay and volatilization rates assuming a well-mixed batch reactor.

Capstone – Wastewater Treatment Wetland Denitrification Unit Design

Jan. 2021 – Present

- Evaluated denitrification processes to mitigate harmful algal blooms (HABs) in Fernhill Lake for the Fernhill Wastewater Treatment facility in Forest Grove, OR. A natural, chemical-free, denitrification process was required to prevent harm to the migrating birds and wetland environment.
- Analyzed wood chip bioreactors and biofilters and rated each based on criteria supplied by client. Dimensions for each were calculated using standard unit operations methods and equations.

ASCE PSU Environmental Design Team

Jan. 2020 – Present

Team Captain

- Led weekly meetings and delegated action items to team members based on their scopes and abilities.
- Calculated alum, quicklime, and chlorine bleach dosing as well as layer depth of filtration using equations from unit operations, hydraulics, and soil mechanics.
- Constructed models of the water filter design and flow diagram using AutoCAD.

EPA Campus RainWorks Challenge – Bioswale & Green Wall Design

Sept. 2020 – Dec. 2020

Lead Project Coordinator

- Assembled and led a multidisciplinary team to design a bioswale and green wall demonstration on PSU campus.
- Created a multiphase project timeline and organized subgroups to complete tasks efficiently for each phase.
- Wrote weekly meeting agendas and delegated meeting roles to facilitate leadership experience amongst all team members.
- Calculated minimum bioswale design volume using city stormwater design codes and using the rational method for peak overland flow, and time of concentration.

Portland Community College

Sept. 2016 – Aug. 2020

Mathematics Tutor & Physics Tutor

- Tutored as many as 40 students per day in physics and a broad range of math – from pre-algebra to differential equations and statistics – for the Student Learning Center.

Skills and Interests

Skills: Microsoft Office (Word, Excel, PowerPoint), AutoCAD, ArcGIS Pro, CE-Qual-W2, HEC-RAS, Leica Total Station operation, MATLAB, R.

Interests/hobbies: Hiking, travelling, playing music with my band, record collecting, developing vegan recipes building on over a decade of restaurant experience, and homebrewing.