

Matthew M. Hross, EIT

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OBJECTIVE:

Obtain a full-time position applying education and exhibited skills in drinking and wastewater treatment, water resources management, and environmental engineering.

CERTIFICATION:

Engineer in Training (EIT)

Awarded by the State of Maine on August 28, 2008, #5912

EDUCATION:

University of Massachusetts, Amherst

M.S. Environmental and Water Resources Engineering, May 2010

GPA 3.76

Related Coursework: Biological Phenomena in Environmental Engineering, Hydrology, Physical and Chemical Treatment Processes, Subsurface Pollution, Surface Water Quality Modeling, Water Chemistry, Water Resources Systems Analysis

University of Maine, Orono

B.S. Civil Engineering, May 2008, Magna Cum Laude

GPA 3.56

Related Coursework: Environmental Aquatic Chemistry, Groundwater Hydraulics, Pollutant Fate and Transport, Wastewater Process Design

WORK EXPERIENCE:

University of Massachusetts, Amherst, MA

Graduate Assistant

September 2008 - Present

- Developed a protocol for quantifying the overall background hydroxyl radical scavenging factor of waters in advanced oxidation processes under the guidance of Dr. Erik J. Rosenfeldt as part of a Master's project.
- Synthesized a proof of concept study for a scavenging measurement system to implement this protocol in the form of an M.S. thesis.

Teaching Assistant

CEE 672 Physical and Chemical Treatment Processes

January 2010 - Present

- Supervised laboratory exercises: reactor hydraulics, gas transfer, GAC adsorption, coagulation and flocculation

CEE 357 Elementary Fluid Mechanics

September 2008 - May 2009

- Supervised laboratory exercises: fluid properties, conservation of energy, pipe friction, minor losses, pump curves, open channel flow

Devine, Tarbell, and Associates, Portland, ME

May 2008 - August 2008

Summer Intern

- Worked with wetlands scientists identifying wetlands and vernal pools for over 100 potential wind turbine sites near Mars Hill, ME

- Worked with full-time engineers on energy production estimates for hydropower operations in New England
- Offered support on due diligence studies assessing the conditions, values, and lives of hydroelectric projects
- Performed data entry checks for models in DAMBRK, HEC-RAS, and DTA's proprietary CHEOPS

Hydro International, Portland, ME

May 2007 - August 2007

Summer Intern

- Performed full-scale laboratory testing on stormwater and wastewater treatment units, including Downstream Defender[®], Up-Flo[®] Filter, Grit King[®], and Grit Classifier
- Installed auto-sampling equipment at local sewer installations to monitor flows and total suspended concentrations of stormwaters
- Assisted with routine office duties, including data entry, report writing, and errands

PROFESSIONAL DEVELOPMENT:

Rosenfeldt E., Hross M., Rapid Measurement of Background Hydroxyl Radical Scavenging in Water. Poster presentation accepted for Universities Forum at AWWA Annual Conference and Exhibition, Chicago, IL June 20-24, 2010

Rosenfeldt E., Hross M., Rapid Measurement of Background Hydroxyl Radical Scavenging in Water. IUVA/IOA North American Conference, Cambridge, MA, May 4, 2009

International Ultraviolet Association 1-Day Workshop: UV and O₃ Basics and Applications, May 3, 2009, Cambridge, MA

ACTIVITIES:

Member, American Water Works Association, 2008 - Present

Member, New England Water Works Association, 2008 - Present

Member, Water Environment Federation, 2008 - Present

Member, American Public Works Association, 2008 - Present

Member, Francis Crowe Society, Inducted 2008

References available upon request.