



Trevor Ghylin, PE, PhD

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SUMMARY

Water technology innovator and entrepreneur with a unique talent set combining environmental engineering and biotechnology. Proven innovator and disruptor passionate about developing and commercializing new technologies and services that have the potential to revolutionize the water and wastewater industries. Specialities: Water/Wastewater Process Engineering, Microbiology, Biotechnology/DNA methods, Start-ups.

EXPERIENCE

Founder/CTO Microbe Detectives, LLC

JANUARY 2012 - PRESENT

Launched a startup company focused on bringing DNA sequencing technology to the water and wastewater industries. Sales Excellence: Networked, pitched and closed deals with more than one hundred clients. Thought Leadership/Public Speaking: Delivered more than a dozen presentations and pitches to audiences as large as 300. "Rising Star" award at the Elevator Pitch Olympics for the Wisconsin Early Stage Symposium (18 companies competed). Won \$50,000 business seed grant from the Water Council. Mentoring/Management: Managed 3 employees and 3 subcontractors

Senior Process Engineer at Xylem

JUNE 2014 - PRESENT

Sales Excellence: Instrumental in more than \$10M in process solutions sales in first 2 years. Business Growth: Key technical leader in product development to revolutionize product portfolio and substantially grow business revenue, margin and market leadership position. Thought Leadership/Public Speaking: Delivered key presentations and publications in leading industry journals and conferences such as WEFTEC and WE&T. Field experience: Commissioning, troubleshooting and startup services for more than a dozen SBR facilities

Ph.D. Researcher at University of Wisconsin, Madison

SEPTEMBER 2011 - JUNE 2014

Research: Cutting edge research applying DNA sequencing technology to make discoveries about the most abundant freshwater bacteria on the planet. Public Speaking: Presentations in undergraduate environmental engineering courses, environmental engineering seminars, biotechnology seminars and more. CHANGE (Certificate on Humans and the Global Environment): Completed an interdisciplinary graduate certificate focused on solving the most complex issues facing humanity. Mentoring/Management: Mentored a dozen independent undergraduate students investigating the water environment

Wastewater Process Engineering at CH2M, Milwaukee WI

JUNE 2006 - JUNE 2014

Sustainability: Facilities Planning for Green Bay WWTP Solids Management (~\$100 M construction) using a holistic approach focusing on reducing energy consumption in treatment processes, recovering embedded energy in municipal solids, controlling pollutants throughout the watershed and closing the cycle on carbon, phosphorus and water. Innovation: Facilities Planning including hydraulic and Biowin modeling for Grand Chute WWTP expansion (\$35 M construction) resulted in a recommendation to utilize cutting edge technology to achieve more stringent effluent requirements while minimizing cost and environmental impact. Client Service: Provide unique approaches to ensure that client's needs and desires are incorporated into all solutions. Utilized the "technomic model" for pre-design and cost estimation of alternatives for a ~\$100M municipal solids processing facility in conjunction with a multiple attribute utility analysis to factor in non-monetary criteria provided by our client. Combining these tools allowed us to recommend a solution that cost effectively meets the client's goals.

EDUCATION

University of Wisconsin, Madison
Ph.D. Environmental Engineering, 2014

University of Wisconsin
Master of Science, Civil and Environmental Engineering, 2006

University of North Dakota
Bachelor of Science, Civil Engineering, 2004

HONORS & ACTIVITIES

Rising Star Award: Wisconsin Early Stage Symposium Elevator Pitch Olympics (2013)

Global Freshwater Seed Accelerator - \$50,000 business startup grant (2013)

Central States Water Environment Association Technical Committee (2012-Present; Chairman in 2013)

Engineers without Borders Mentor, University of Wisconsin-Madison (Project: Sewer Installation in El Salvador)

Water Environment Federation - Canham Graduate Studies Fellowship (2011)

Biotechnology Training Program Fellowship - National Institutes of Health (NIH) (2011)

Water Environment Federation Manual of Practice #8 (WEF MOP 8) Update Contributing Author - Chapter 14 - **Fluidized Bed Biofilm Reactors**

Water Environment Federation - Chair of the Young Professional Committee of the CSWEA WI section

Engineers without Borders Mentor, Marquette University

National Science Foundation Graduate Research Fellowship Honorable Mention