Ryan Thomas, EIT

Education

B.S. – Environmental Engineering, Florida Atlantic University, 2021

M.S. – Civil Engineering concentrated in Water Resources and Environmental Engineering, Florida Atlantic University, 2022

Professional Licenses and Affiliations

Engineer in Training, NCEES

Air and Waste Management Association (A&WMA)

Solid Waste Association of North America (SWANA)

Professional and Research Experience

**Staff Professional, SCS Engineers**

At SCS, Ryan has worked on a variety of projects within Virginia, Maryland, West Virginia and Pennsylvania. These projects include creating Title V Permit applications, Air Plan Approval applications, landfill gas field collection, flare data analysis, county-wide zero waste plan, and landfill gas generation models.

**Master’s Thesis, Florida Atlantic University**

Between August 2021 and December 2022, Ryan completed a Mater of Science degree in civil engineering concentrated in water resources and environmental engineering. Throughout this time, he completed a thesis entitled Waste Derived Activated Carbon Materials for Landfill Gas Purification. The research converted un-recyclable paper waste into amine-modified activated carbon and was used to adsorb carbon dioxide and hydrogen sulfide from landfill gas.

**Graduate Research Assistant, Florida Atlantic University**

Ryan Assisted Dr. Masoud Jahandar Lashaki with research regarding the creation of an algae-derived activated carbon material for the purpose of removing excess aqueous-phase phosphorus and nitrogen from waterways to prevent harmful algal blooms.

**Undergraduate Researcher, Florida Atlantic University**

Ryan was a member of FAU’s group competing in the 17th annual EPA P3 student design competition. Their group was awarded Phase I and Phase II grants totaling $125,000 for the creation of an amine-modified silica material for concurrent removal of carbon dioxide and hydrogen sulfide from landfill gas in order to streamline the purification process.

**GIS and AutoCAD Intern, Loxahatchee River District**

Over the summer of 2020, Ryan interned at the Loxahatchee River District waste water treatment plant. He improved GIS their layers by updating existing waste water infrastructure records throughout the city.

### Publications and Presentations

Waste Derived Activated Carbon Materials for Landfill Gas purification, Masters Thesis Florida Atlantic University, Ryan Thomas, 2022

Biogas Upgrading to Renewable Natural Gas Using Amine-Modified Mesoporous Silica, Fundamentals of Adsorption 14th International Conference. Masoud Jahandar Lashaki, Mitchell Guirard, Ryan Thomas, Dung Lam, Diego Li, Megan McFadden, Julie Deshommes, Tyler Owen, 2021

Synthesizing Amine-Modified Silica Materials for Concurrent Removal of Carbon Dioxide and Water Vapor from Landfill Gas, FAU Office of Undergraduate Research and Inquiry, Masoud Jahandar Lashaki, Ph.D., Ryan Thomas, Mitch Guirard, Diego Li, 2021

Single-Stage Process for Biogas purification, 17th Annual P3 Awards: A National Student Design Competition Focusing on People, Prosperity and the Planet, Masoud Jahandar Lashaki, Dan Meeroff, Fred Bloetscher, Ali Ayub, Sara Ahsan, Mitchell Guirard, Ryan Thomas, Dung Lam, Diego Li, Megan McFadden, Julie Deshommes, Tyler Owen, 2019

### Honors and Awards

**Student Achievement Spotlight, Florida Atlantic University (FAU)**

Ryan was recognized by FAU’s College of Engineering and Computer Science for his Master’s thesis research and receiving two scholarships.

**Scholarship Award, Environmental Research and Education foundation (EREF)**

The EREF scholarship is awarded to recognize excellence in Master’s and Doctoral waste management research and education. Ryan was chosen to receive this scholarship for his academic performance, contribution to the solid waste industry and its scientific community, and potential for future success.

**Air Pollution Control and Waste Minimization Research Scholarship, Air and Waste Management Association (A&WMA)**

Ryan was the recipient of this award for his Master’s thesis research regarding the creation of a paper waste-derived activated carbon adsorbent for the purpose of streamlining carbon dioxide and hydrogen sulfide removal from landfill gas.

**Food Future Hackathon First Place Winner**

In the years 2021 and 2022, Ryan won first place in the Food Future Hackathon for his innovative ideas and professional articulation of waste minimization technologies.

**Faculty Award for Outstanding Leadership, FAU College of Engineering and Computer Science Department of Civil, Environmental and Geomatics Engineering.**

This award recognizes students who performed beyond their academic skills and volunteer to serve, motivate, and inspire others. It was observed that Ryan displayed leadership in various capacities such as taking the lead on various classroom projects, serving as a mentor and much more.