

Curriculum Vitae

EDUCATION EXPERIENCE:

PH.D. IN CIVIL AND ENVIRONMENTAL ENGINEERING

JULY 2021

Florida A&M University, Tallahassee, FL

Dissertation: *A Cross-Sectional Population-based Study Analyzing Water Quality and Socioeconomic Variabilities in the State of Florida.*

M.S. IN CIVIL ENGINEERING

MAY 2014

Florida A&M University, Tallahassee, FL

Thesis: *Using Surface Ambient Air Concentrations to Quantify Methane Emissions Across Landfills.*

B.S. IN CIVIL AND ENVIRONMENTAL ENGINEERING; AND MATHEMATICS (MINOR) MAY 2011

Florida A&M University, Tallahassee, FL

RELEVANT COURSEWORK:

Solid and Hazardous Waste Engineering (CGN 5930); Water Resources Plan Management (CWR 5635); Environmental Geotechnics (CEG 5705); Remediation Engineering (ENV 5028); Principles of Ecology (EVR 6064); Environmental Pollution and Risk Management (ENV 5864); Air Pollution Control (CGN 5931); Probability Design in Civil Engineering (CGN 5905); Design of Water Quality Facilities (ENV 5565); Scientific Writing and Publications (EVS 6932); Special Topics in Industrial Engineering: Technology, Entrepreneurship, and Communication (EIN 5930); Principles of Environmental and Occupational Health (EVR 5062); Environmental Biotechnology (EVS 5896); Source/Contaminant Environmental Pollution (EVR 5260); Environmental Resources, Ecology, and Pollution (EVR 5863); Directed Individual Study: LandGEM Analysis (CGN 5905).

WORK EXPERIENCE:

POSTDOCTORAL RESEARCH ASSOCIATE

OCT 2021 – Present

University of Southern California, Keck School of Medicine; Los Angeles, CA

- Conducts investigations around community-driven epidemiology for environmental justice.
- Collects and analyzes drinking water quality data for Southern California.
- Develop grant writing skills, publish scholarly articles, and present research findings.
- Address environmental justice disparities in communities facing economic hardship.

ENVIRONMENTAL ENGINEERING COACH/MENTOR

JUN 2021 – JUN 2021

Mobley-Thompson Summer Academy, Florida A&M University; Tallahassee, FL

- Educated students on entrepreneurship and business attributes.
- Trained students on research management and quality data compilation.
- Led students in business strategy, profit analysis, and data analysis.
- Taught students how to create a business pitch and commercial for products.
- Led students in critical and logical thinking to strategically stratify data for presentation.

ENVIRONMENTAL ENGINEERING RESEARCH MENTOR**JUN 2014 – JUN 2021**

Florida A&M University; Tallahassee, FL

- Educated students on the skill of data collecting and conducting reputable research.
- Trained students on research, data compilation, analysis, and management.
- Led students in data optimization and preservation of the integrity of data and findings.
- Taught statistical methods to summarize data and evaluate implications of variabilities in results.
- Taught students how to strategically stratify data for summarization and present results.

GRADUATE RESEARCH FELLOW**JUL 2017 – JUL 2021**

Civil and Environmental Engineering Program; Florida A&M University

- Mastered the skill of data collecting and conducting reputable research.
- Compiled, analyzed, and managed data for prestigious journal publications.
- Maintained quality control standards to optimize and preserve the integrity of data and findings.
- Used a wide range of statistical methods to summarize data and evaluate implications of variabilities in the results.
- Strategically stratified data for summarization and written analysis of results.

FEDERAL AFFAIRS FELLOW**JUL 2015 – JAN 2016**

Executive Office of the Governor; Washington, D.C.

- Represented the State of Florida and Governor's Office as a liaison amongst state and federal agencies.
- Developed and proposed ideas for policy improvement and critical progressive changes.
- Monitored and evaluated federal legislation and its impact on Florida's state government and citizens.
- Attended and participated in briefings, hearings and committees on Capitol Hill.
- Communicated directly with congressional members and staff.
- Completed Executive Office of the Governor Washington, D.C. Office Annual Reports.

FLORIDA GUBERNATORIAL FELLOW**AUG 2014 – MAY 2015**

Office of the Governor; Tallahassee, FL

- Participated in government activities, including budget and policy briefings and press conferences.
- Completed a policy proposal using comprehensive research focused on determining solutions to issues facing Floridians.
- Fulfilled roles of critical responsibility and interacted closely with Florida's top leaders.
- Received on-the-job training and practical experience on the inner workings of government.
- Conducted service projects pertaining to environmental regulations, management and stewardship.

**PROGRAM ASSIST. TO DEPUTY SECRETARY OF REGULATORY PROGRAMS
2015****AUG 2014 – MAY**

Florida Department of Environmental Protection; Tallahassee, FL

- Developed and implemented a statewide pollution prevention educational website.
- Analyzed and assessed the Environmental Protection Agency's LandGEM model and presented findings to the FDEP Division of Air and Resource Management.
- Conducted service projects pertaining to environmental regulations, management and stewardship.
- Planned and directed the execution of technical, economical and administrative functions of various projects.

ENGINEERING INTERN

SEP 2012 – JUN 2013

AMEC Engineering & Infrastructure, Inc.; Tallahassee, FL

- Assisted engineers with groundwater and soil data entry into MS Excel database.
- Conducted research on innovative remedial technologies and provided technical assistance to consulting engineers.
- Developed, prepared and reviewed reports (Operation & Maintenance, Post Active Remediation, and Supplementary Site Assessment) and analyzed results.
- Obtained practical, realistic, and hands-on experience with field oversight, groundwater sampling, and remedial system installation.

GRADUATE RESEARCH ASSISTANT

MAR 2012 – AUG 2012

Research Center for Minority Institutions; Tallahassee, FL

- Assisted with a research project that focused on electroless deposition.
- Collected data on metal plating for implementation of experiments.
- Conducted numerous inventory list of laboratory materials.
- Executed experiments, analyzed and interpreted primary data, and formed logical conclusions.

ENGINEERING INTERN

MAY 2011 – AUG 2011

Poland Civil Infrastructure Systems Program; Krakow Poland

- Studying the history and practices of civil engineering in Poland.
- Conducted comprehensive research in order to broaden the scope of theoretical thinking.
- Learned about design and fabrications of scaffolding and formwork. Visited and assessed construction sites of bridges, stadiums, and highways.
- Gained knowledge and understanding on distinctive skills that will assist in being a successful engineer.

ENGINEERING INTERN

FEB 2011 – MAY 2011

Mactec Engineering & Consulting, Inc.; Tallahassee, FL

- Assisted engineers with processing and entering soil and groundwater data into MS Excel database.
- Assisted with general office tasks as well as effectively communicated with project team, clients, and regulatory agencies.
- Prepared proposals, reports, and correspondence.
- Conducted field site visits to verify design criteria and collect data.

- Worked with manufacturing, regulatory, sales and marketing staff to evaluate feasibility and cost-effectiveness of new and existing products.
- Maintained a working knowledge of new techniques, technologies and concepts.

COMMUNITY SERVICE EXPERIENCE:

- The Church at Bethels Family, Helping Hands Ministry, Houston, TX.
- Braids by Nemmi Scholars, Tallahassee, FL.
- The Church at Bethels Family, Hurricane Harvey Relief, Houston, TX.
- Houston Food Bank, Houston, TX.
- Florida Gubernatorial Fellow Regional Interviews, University of Florida, Gainesville, F.
- Florida Youth Commission: Florida Youth Commission Mock Town Hall, Tallahassee FL.
- Big Bend Homeless Coalition, HOPE Community Day of Service, Tallahassee, FL.
- Second Harvest of the Big Bend, Tallahassee, FL.

PROFESSIONAL DEVELOPMENT ACTIVITIES:

- Discovering Race & Ethnicity Data on data.census.gov (Webinar) February 23, 2021.
- Understanding Statistical Geographies (Webinar) February 16, 2021.
- James Hayton's Ph.D. Academy (Webinar): How to write your Ph.D. Thesis. April 8, 2020.
- Altcademy Coding 101 (Webinar series) April 2020.
- Introduction to GIS training (ESRI Instruction) November 2019.
- McKnight Doctoral Fellowship Effective Writing Workshop, Virtual Class Sessions. (March 14th – April 4th, 2019).
- Career and Professional Development: The Winning Resume Workshop, Tallahassee, FL. (September 4th, 2018).
- Environmental Research and Education Foundation Webinar: Functional Stability and the End of Post Closure Care at Municipal Solid Waste Landfills (December 4th, 2017).
- Environmental Research and Education Foundation. Landfill Emissions and Methane Oxidation: Field-Scale Test Sections Experiment, Tallahassee, FL (April 21, 2017). • 32nd Annual McKnight Fellows' Meeting & 20th Annual Graduate School Conference, Tampa, FL (November 11-13, 2016).
- 31st Annual McKnight Fellows' Meeting & 19th Annual Graduate School Conference, Tampa, FL (November 13-15, 2015).
- 30th Annual McKnight Fellows' Meeting & 18th Annual Graduate School Conference, Tampa, FL (November 14-16, 2014).

PROFESSIONAL AFFILIATIONS

Tau Beta Pi Florida Eta Chapter; Air and Waste Management Association; Order of Engineers; American Society of Civil Engineers; National Society of Black Engineers (2006).

AWARDS AND PUBLICATIONS

GRANTS AND FELLOWSHIPS:

- Graduate Assistance in Areas of National Need (GAANN) 2019
- McKnight Doctoral Fellowship 2014

- Dwight David Eisenhower Fellowship 2015
- Transportation Research Board Fellowship 2014
- Title III Minority Engineering Fellowship 2012

JOURNAL PUBLICATIONS:

- Cole, N. (2014) Sustainable Use of Dredge Material in Roadway Construction. *Transportation Research Board 93rd Annual Meeting*, Paper # 14-2262, 7p.

CONFERENCE PROCEEDINGS/PRESENTATIONS:

- Cole, N. (March 8, 2015). Using Surface Ambient Air Concentrations to Quantify Methane Emissions from Landfills. *The Conference of Southern Graduate Schools Three Minute Thesis (3MT) Regional Competition*, New Orleans, LA.
- Cole, N. (November 19, 2014). LandGEM: Landfill Gas Emission Model. *Presented to the Secretary and staff of the Florida Department of Environmental Protection*, Tallahassee, FL.
- Cole, N. (October 21, 2014). Using Surface Ambient Air Concentrations to Quantify Methane Emissions from Landfills. *The 8th Intercontinental Landfill Research Conference*, Crystal River, FL.
- Cole, N., Moye, D., Sakharova, D. (June 26, 2014). Harborsound Habor Expansion Proposal. *The 2014 Annual Air and Waste Management Association Environmental Challenge International*, Long Beach, CA.
- Cole, N. (April 11, 2014). Using Surface Ambient Air Concentrations to Quantify Greenhouse Gas Emissions from Landfills. *The 2nd Annual FAMUFSU College of Engineering Graduate Research Symposium*, Tallahassee, FL.
- Cole, N. (April 2, 2014). Using Surface Ambient Air Concentrations to Quantifying Methane Emissions from Landfills. *The 1st Florida A&M University Three Minute Thesis (3MT) Research Communication Competition*, Tallahassee, FL.
- Cole, N. (January 14, 2014). Sustainable Use of Dredge Material in Road Construction". *The 93rd Annual Transportation Research Board Conference*, Washington, D.C.
- Cole, N. (April 23, 2013). Using Surface Ambient Air Concentrations to Quantify Greenhouse Gas Emissions from Landfills. *"The Business of Green: Innovating for the Economy and the Environment Green Expo Poster Competition*, Tallahassee, FL.
- Cole, N. (April 19, 2013). Using Surface Ambient Air Concentrations to Quantifying Methane Emissions from Landfills. *The University of South Florida 1st Annual Statewide Graduate Research Symposium*, Tampa, FL.
- Cole, N. (April 11, 2013). Quantifying Greenhouse Gas Emissions from Landfills. *Title III Minority Engineering Program Semester*, Tallahassee, FL.
- Cole, N. (March 22, 2013). Quantifying Greenhouse Gas Emissions from Landfills. *The 1st FAMU-FSU College of Engineering Graduate Research Symposium*, Tallahassee, FL.
- Cole, N. (November 29, 2012). Quantifying Greenhouse Gas Emissions from Landfills.
- *Title III Minority Engineering Program Semester Presentations*, Tallahassee, FL.

ACADEMIC HONORS AND AWARDS:

- Leaders Recognizing Leaders Distinguished Honoree (2016)
- 2015 HBCU Top 30 Under 30 Honoree (2015)
- The Program of Excellence in STEM (PE-STEM) Excellence as an Instructor (2015)
- Outstanding Florida Gubernatorial Leadership Fellow (2015)
- Regional Finalist for the Conference of Southern Graduate Schools 3MT Research Competition (2015)
- Dwight David Eisenhower Transportation Fellow Achievement Award (2015)
- Presenter at the 8th Intercontinental Landfill Research Symposium (2014)
- 2nd Place Winner in the FAMU-FSU College of Engineering Graduate Research Symposium (2014)
- 1st Place Winner in 1st FAMU Three Minute Thesis (3MT) Research Communication Competition (2014)
- North Carolina State Women in Engineering Program Participant (2014)
- Air and Waste Management Association Environmental Challenge, International Competition – 3rd place Team Tie (2014)
- Transportation Research Board Minority Engineering Fellow Presenter (2014)
- 1st Place College Winner at the Innovating for the Economy and the Environment Green Expo Poster Competition (2013)
- Distinguished Scientific Contribution Award for Poster Participation at the 1st Statewide Graduate Student Research Symposium (2013)
- Honorable Mention at the 2013 FAMU-FSU College of Engineering Graduate Research Symposium (2013)
- Ms. National Society of Black Engineers 2013 for the National Society of Black Engineers (2013)
- 1st Place presenter for master's Title III Minority Engineering Program Presentations (2012, 2013)

REFERENCES

Dr. Clayton Clark II; Clayton.clarkii@famuedu

Dr. Richard S. Gragg; Richard.gragg@famuedu