Cristina E. Marcillo

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EDUCATION

PhD Candidate in Biological Systems Engineering — Aug. 2016-present
Virginia Polytechnic Institute and State University — Expected Graduation: May 2020
G. W. Carver Research Assistant and Interfaces of Global Change Fellow
GPA: 3.86/4.00

B.S. in Environmental Engineering, — Aug. 2012-May 2016
Saint Francis University
Ecological Engineering concentration with Mathematics and Physical Science Minors
Honors student, GPA: 3.83/4.00

RESEARCH POSITIONS

Virginia Polytechnic Institute and State University, Blacksburg, VA — Aug. 2016-Present
G. W. Carver Research Assistant and Interfaces of Global Change Fellow

- Dissertation research on Safe Drinking Water Act compliance in urban and rural parts of the US and mining impacted drinking water in rural Guatemala
- Trained to be a leader in interdisciplinary STEM groups working with project stakeholders
- Involved in a network of a diversity programs in the College of Agriculture and Life Sciences

Virginia Polytechnic Institute and State University, Blacksburg, VA — Jul. 2017 – May 2018
Center for the Enhancement of Engineering Diversity Graduate Assistant

- Advisor to the National Society of Black Engineers Pre-College Initiative, where high schools students explore engineering disciplines and receive assistance in applying to college
- Administrative assistant for the Virginia Tech Network for Engineer Transfer Students

Saint Francis University, Loretto, PA — Sept. 2014-May 2016
Undergraduate Researcher

- Conducted honor's thesis research on the co-treatment of acid mine drainage and municipal wastewater, including travel to Bolivia for field sampling
- Extensive laboratory experience analyzing a suite of water quality parameters

Clarkson University, Potsdam, NY — May 2015-Jul. 2015
ASSETs to Serve Humanity REU, Center for Air Resources Engineering and Science

- Analyze toxaphene contaminated sediment from Bear Pond, in Adirondack, NY
- Presented research at Clarkson's undergraduate summer research conference in oral format

Saint Francis University, Loretto, PA — Oct. 2012-Sept. 2014
Research Translator and Publication Assistant

- Translated research article into Spanish on acid mine drainage remediation in Potosi, Bolivia
- Acted as corresponding author with peer-reviewed Chilean Journal for article publication

TEACHING POSITIONS

Saint Francis University, Loretto, PA — Aug. 2015-Dec. 2015
Teaching Assistant, Department of Engineering

- Teaching assistant for a Fluid Mechanics Lab

Saint Francis University, Loretto, PA Aug. 2015-Dec. 2015
Teaching Assistant, Department of Chemistry

- Teaching assistant for a Thermodynamics I lecture class

Saint Francis University, Loretto, PA Oct. 2013- Apr. 2014
Calculus I & II Peer-Led Team Learning Leader, Department of Mathematics

- Led two weekly sessions tutoring students in Calculus I and II lecture classes

PUBLICATIONS

J.C. Stager, B. Wiltse, B.F. Cumming, T.M. Holsen, J. Stetler, C. Laxson, **C.E. Marcillo**, D.F. Charles. Has the biotic integrity of Bears Pond (Adirondack Mountains, New York, USA) been restored following acidification and reclamation? Expected submission to *Lake and Reservoir Management* by Jan. 2019.

C.E. Marcillo, L.H. Krometis. (2019). Small Towns, Big Challenges: Does Rurality Influence Safe Drinking Water Act Compliance? *AWWA Water Science*. 2019;e1120. https://doi.org/10.1002/aws2.1120

W.H.J. Strosnider, F.S. Llanos López, **C.E. Marcillo**, R.R. Callapa, R.W. Nairn **(2014)** Contaminantes adicionales de drenaje acido de mina de Cerro Rico de Potosí impactan la cabecera del Rio Pilcomayo. *Avances en Ciencias e Ingeniería* 5(3): 1-17.

CONFERENCE PRESENTATIONS

C.E. Marcillo, L.A. Krometis **(2018)**. Disparate drinking water quality across urban and rural Virginia. Oral Presentation. Proceedings of the American Public Health Association Conference.
C.E. Marcillo, L.A. Krometis **(2018)**. Disparities in the incidence of Drinking Water Quality Violations across Urban and Rural Virginia. Poster Presentation. Proceedings of the SACNAS Advancing Chicanos/Hispanics & Native Americans in Science Conference.
C.E. Marcillo, L.A. Krometis **(2018)**. Disparate drinking water quality and compliance across urban and rural Virginia under the Safe Drinking Water Act. Poster Presentation. Proceedings of the Virginia Tech Interfaces of Global Change Research Symposium.
C.E. Marcillo, L.A. Krometis **(2017)**. Advancing equity: Drinking Water violations in rural and urban Virginia. Poster Presentation. Proceedings of the American Ecological Engineering Society National Meeting.
C.E. Marcillo, L.A. Krometis **(2017)**. Water violations in rural and urban Virginia. Poster Presentation. Proceedings of the Virginia Tech Interfaces of Global Change Research Symposium.
C.E. Marcillo, L.A. Krometis **(2017)**. Advancing equity: Comparing water violations in rural versus urban Virginia. Oral Presentation. Proceedings of the Virginia Tech Using Science and Engineering as a Public Good Research Symposium.
C.E. Marcillo, P. Smyntek, W.H.J. Strosnider **(2015)**. Sustainable co-treatment of acid mine drainage and municipal wastewater: performance factors and developing world possibilities. Proceedings of the University of Oklahoma International WaTER Conference.
C.E. Marcillo, T. Holsen, X. Xia **(2015)**. Toxaphene in Bear Pond Sediment. Proceedings of the Clarkson University Summer Symposium on Undergraduate Research Experiences.
P. Smyntek, J. Bandstra, R. Wagner, W.H.J. Strosnider, **C.E. Marcillo (2015)**. Removal and behavior of metal contaminants during passive co-treatment of synthetic acid mine drainage and synthetic municipal wastewater Proceedings of the American Chemical Society National Meeting.

HONORS & AWARDS

Pratt Engineering Travel Scholarship, Virginia Tech Sept. 2018
Conference Travel Scholarship, SACNAS Jul. 2018

G. W. Carver Research Assistant, Virginia Tech	Fall 2016-Present
Interfaces of Global Change Fellow, Virginia Tech	Fall 2016-Present
Davenport Leadership Fellow, Virginia Tech	Fall 2016- Spring 2017
Environmental Engineering Fellowship, Saint Francis University	Fall 2012- Spring 2016
Founder's Scholarship, Saint Francis University	Fall 2012- Spring 2016
Dean's List Recipient, Saint Francis University	Fall 2012- Spring 2016
Honors Program at Saint Francis University	Fall 2012- Spring 2016
Environmental Engineering Outstanding Research Award, Saint Francis University	April 2016
Research Excellence Award, Office of Student Research, Saint Francis University	November 2015
Undergraduate Research Grant, School of Sciences, Saint Francis University	Fall 2014 & 2015
Best Oral Presentation (Environmental Sciences,) Clarkson University	July 2015

MEMBERSHIPS

Alpha Epsilon, Biological & Agricultural Engineers Society	April 2017
Delta Epsilon Sigma, National Catholic Honors Society	April 2015
Kappa Mu Epsilon, Mathematics Honor Society	January 2014
Alpha Phi Omega, National Service Organization	Fall 2013

UNIVERSITY INVOLVMENT & VOLUNTEERING

Graduate Rep., Interfaces of Global Change Curriculum Committee, Virginia Tech	Fall 2018-Present
College of Engineering Early Engineering Mentor, Virginia Tech	Fall 2018-Present
Graduate Rep., Biological Systems Engineering Diversity Committee, Virginia Tech	Fall 2017-Present
Partnering with Educators & Engineers in Rural Schools volunteer, Virginia Tech	Fall 2017-Present
Biological Systems Engineering Student Organization, Secretary, Virginia Tech	Fall 2017-Spring 2018
Interfaces of Global Change Student Organization Member, Virginia Tech	Fall 2016-Present
Boston Cares Volunteer Network, Boston, MA	May 2016-July 2016
Alpha Phi Omega Service Organization, Saint Francis University	Fall 2013- May 2016
Environmental Action Society, Saint Francis University	Fall 2013- May 2016
Environmental Engineering Society, Saint Francis University	Fall 2012-May 2016
Reaching Every Door Day of Service, Saint Francis University	October 2014 & 2015
Study Abroad, Universidad Nebrija, Madrid, Spain	June 2013 – July 2013

SKILLS:

- Fluent in Spanish, written & oral
- Highly skilled in: ArcGIS, QGIS, & R studio
- Programming languages & mathematical packages: SAS, Matlab, & Python by Enthought Canopy
- Computer aided design/engineering: AutoCAD

REFERENCES

Leigh-Anne Krometis, Associate Professor of Biological Systems Engineering
Virginia Polytechnic Institute and State University
Seitz Hall 312
Blacksburg, VA, 24061
Email: krometis@vt.edu

William H.J. Strosnider, Assistant Professor of Environmental Engineering
Saint Francis University

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