

GERARDO MARTINEZ

2003 Infinity Circle Apt. 127
Golden, CO 80401

Phone: (310) 910-2467
Email: gmartinez1@mines.edu

GERARDO MARTINEZ is a Ph.D. student at Colorado School of Mines, studying earth resources development engineering. He received his M.S. in environmental engineering from the University of California, Davis. His master's thesis focused on mercury contamination in watersheds due to uncontrolled gold mining in the Madre de Dios region of Peru. Gerardo, a 2015 EPA STAR Fellow, has over seven years of laboratory and research experience. He is currently studying the opportunities and challenges associated with formalization of artisanal and small-scale gold mining in the Puno region of Peru. His previous work at Syracuse University focused on the fate and transport of mercury and nutrients in an agricultural constructed wetland.

EDUCATION

Colorado School of Mines, Mining Engineering Department

Ph.D. in Earth Resources Development Engineering. Expected May 2022. GPA: 4.0/4.0

University of California, Davis, College of Engineering

M.S. in Environmental Engineering, June 2018. GPA: 3.8/4.0

Syracuse University, L.C. Smith College of Engineering and Computer Science

B.S. in Civil Engineering, May 2015. GPA: 3.4/4.0

PROFESSIONAL EXPERIENCE

Graduate Researcher

Colorado School of Mines, Mining Engineering

July 2018 –

Present

- Research team leader for an investigation evaluating the benefits, challenges, and shortcomings of formalization of artisanal and small-scale gold mining in the Puno region of Peru.

University of California, Davis, College of Engineering

February 2016 – June

2018

- Project manager for an investigation of mercury exposure and bioaccumulation associated with artisanal and small-scale gold mining in the Madre de Dios, Peru.

Teaching Assistantship

University of California, Davis, College of Engineering

September 2015 – December 2017

Teaching Assistant

- ECI 3 – Intro to Civil and Environmental Engineering Systems. Facilitated weekly lab sections and graded assignments for an introductory level engineering course. Fall 2015, 2016, 2017.
- ECI 148A – Water Quality Management. Facilitated daily class activities and graded assignments for an upper division engineering course. Winter 2016.
- ECI 16 – Spatial Data Analysis. Facilitated daily class activities and lab sections and graded assignments for an introductory level engineering course on ArcGIS and AutoCAD. Spring 2016.

Syracuse University, College of Engineering
2015

July 2015 – September

Teaching Assistant

- ECS 125 – Survey of Engineering Problems. Facilitated daily class activities and graded assignments for an introductory level engineering course for high school juniors. Summer 2015.

Lab Technician with Dr. Charles T. Driscoll, NAE

Syracuse University Civil and Environmental Engineering Laboratory
2015

June 2012 – August

- Assisted with day-to-day activities such as analyzing water samples for acid neutralization capacity (ANC), pH, total mercury (T-Hg), total nitrogen (TN), total phosphorus, aluminum monomeric, ammonium, heavy metals (copper, zinc, cadmium) and ions (fluoride, chloride, nitrate, sulfate). Coordinated samples for various projects, analyzed results, and made conclusions.

Undergraduate Researcher

Madison County Constructed Wetland
2015

June 2012 – August

- Project manager for constructed wetland monitoring project for Madison County, NY. Coordinated sampling events and analyzed water samples for various analytes. Inspected the water quality in the agricultural constructed wetland, regulated wastewater in order to comply under EPA water quality standards, characterized wastewater, and compiled data set for Syracuse Center of Excellence.

ORAL/POSTER PRESENTATIONS

Society for Mining, Metallurgy & Exploration Annual Conference

February 2019

'Artisanal and Small-Scale Gold Mining in the Puno Region of Peru: An Assessment of Formalized ASGM Operations.' Oral presentation given at the Society for Mining, Metallurgy & Exploration (SME) Annual Conference, 24-27 February 2019, Denver, CO.

13th International Conference on Mercury as a Global Pollutant

July 2017

'Assessment of mercury contamination in riverine fish associated with uncontrolled gold mining in Madre de Dios, Peru.' Poster presentation given at the 13th International Conference on Mercury as a Global Pollutant, 16-21 July 2017, Providence, RI.

Delta Tributaries Mercury Council Meeting

May 2017

'Assessment of mercury contamination in riverine fish associated with uncontrolled gold mining in Madre de Dios, Peru.' Oral presentation given at the Delta Tributaries Mercury Council Meeting, 23 May 2017, Sacramento, CA.

Center for Amazonian Scientific Innovation (CINCIA) Seminar

January 2017

'Metodologías de muestreo para estudios de mercurio en peces (Sampling Methodologies for Mercury in Fish Studies).' Oral presentation given in Spanish at the Center for Amazonian Scientific Innovation (CINCIA) Seminar for local environmental agencies and stakeholders, 20 January 2017, Puerto Maldonado, Peru.

UC Davis Environmental Engineering Graduate Seminar

October 2015

'*Water Treatment System in El Ciprés, Honduras.*' Oral presentation given at the fall quarter UC Davis Environmental Engineering Graduate Seminar, 27 October 2015, Davis, CA.

New England Graduate Student Water Symposium
2014

September

'*Mercury Fate in the Madison County Constructed Wetland.*' Poster presentation given at the New England Graduate Student Water Symposium, 12-14 September 2014, Cambridge, MA.

Syracuse University Summer Research Program Seminar

August 2014

'*Mercury Fate in the Madison County Constructed Wetland.*' Oral presentation given at the annual Syracuse University Summer Research Program Seminar, 1 August 2014, Syracuse, NY.

3rd Annual National Collegiate Research Conference

January 2014

'*Seasonal Variance in the Madison County Constructed Wetland.*' Poster presentation given at the 3rd Annual National Collegiate Research Conference hosted by Harvard College Undergraduate Research Association (HCURA), 23-25 January 2014, Cambridge, MA. **THIRD PLACE.**

Syracuse Center of Excellence Symposium Student Poster Competition

October 2013

'*Seasonal Variance in the Madison County Constructed Wetland.*' Poster presentation given at the Syracuse Center of Excellence Symposium Student Poster Competition, 21 October 2013, Syracuse, NY. **SECOND PLACE.**

HONORS AND ACTIVITIES

- EPA STAR Fellow (2015-2017)
- Our Time Has Come Scholar (2011-2015)
- Louis Stokes Alliance for Minority Participation (LSAMP) Scholar (2012-2014)
- National Action Council for Minorities in Engineering (NACME) Scholar (2014)
- National Association of Multicultural Engineering Program Advocates (NAMEPA) Scholar (2014)
- Member, UC Davis Environmental Engineering Graduate Seminar Board
- Member, Chi Epsilon honor society
- Member, Society of Hispanic Professional Engineers (SHPE)
- Member, Kappa Alpha Psi Fraternity, Incorporated
- Member, American Society of Civil Engineers (ASCE)
- Volunteer, Meals on Wheels of Syracuse, NY

PUBLICATIONS

Martinez, G.; McCord, S.A.; Driscoll, C.T.; Todorova, S.; Wu, S.; Araujo, J.F., Vega, C.M.; Fernandez, L.E. Mercury Contamination in Riverine Sediments and Fish Associated with Artisanal and Small-Scale Gold Mining in Madre de Dios, Peru. *Int. J. Environ. Res. Public Health* **2018**, *15*, 1584.

REFERENCES

- 1) Prof. Nicole Smith, Ph.D., Cultural Anthropology, Colorado School of Mines, nmsmith@mines.edu

- 2) Stephen McCord, Ph.D., P.E., Environmental Engineering, McCord Environmental, Inc.,
sam@mccenv.com
- 3) Prof. Charles T. Driscoll, Ph.D., Civil & Environmental Engineering, Syracuse University,
ctdrisco@syr.edu