

# Robert Sterling Spencer, EIT

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## EDUCATION

### Master of Science, Environmental and Water Resources Engineering

Expected Graduation: Dec 2016

University of Texas at Austin | GPA: 3.86

### Bachelor of Science, Environmental Engineering

Graduated: Dec 2014

University of Colorado at Boulder | GPA: 3.42 | Dean's List (5) | EIT

Courses: Sustainability & Renewable Energy | Geographical Information Systems | Urban Systems Engineering | Sampling & Analyses | Heat Transfer | Thermodynamics | Water Resources Mgmt. | Statistics | Applied Ecology | Engineering Processes | Multidimensional Data Analysis in Geo (enrolled) | Decision, Risk, and Reliability (enrolled) | etc.  
Skills: ArcGIS | Python | SQL | R | Matlab | Algorithm Development | Spatiotemporal Data Analysis | Machine Learning | Data Visualization | AnyLogic (Systems Modeling) | Land Surveying | AutoCAD | C++ | etc.

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## RELEVANT WORK EXPERIENCE

### NASA: Goddard Space Flight Center

Greenbelt, MD 20771

Jun 2016 - Present

#### Graduate Intern | Student Research Assistant

- Evaluating a satellite retrieval algorithm's quality assurance for atmospheric aerosols by performing geospatial and temporal collocations and exploratory data analysis with aircraft and ground-based instruments.
- Developing scripts to extract, sample, and visualize key areas from large and variegated scientific datasets.
- Aiding atmospheric scientists in characterizing the interactions and uncertainties between aerosols and clouds.

### Institute of Arctic and Alpine Research

Boulder, CO 80303

May 2013 - Aug 2015

#### Antarctic Field Research Grantee

McMurdo Dry Valleys LTER, Antarctica

Dec 2014 - Feb 2015

- Procured climate and ecological data through stream flow measurements, land surveying, water quality sampling, and algal mass collection, while maintaining a network of hydrologic stream gauges in Antarctica.
- Lived and worked among a small efficient team while inhabiting Antarctica's extreme environments.

#### Research Assistant

- Rectified and published raw stream flow, rating curve, and water quality records for an online database.
- Developed a regression analysis to model synthetic hydraulic behaviors of a glacier-fed stream.
- Conducted sampling and tracer studies at various rivers and lakes within Colorado's watersheds.
- Assisted with preparing graduate research papers for publication through peer review sessions.

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## RELEVANT VOLUNTEER EXPERIENCE

### Engineers Without Borders, University of Colorado's Nepal Team

Mar 2011 - May 2013

#### Project Design Lead | Treasurer

- Effectively provided clean drinking water to a developing community of over 200 Nepali people by designing and constructing a protection system and tap stand for a fresh water spring.
- Ensured sustainability of a water treatment system for a hospital in Nepal by composing an O&M plan.
- Collected, compiled, and assessed land survey data and performed water quality tests on spring sources.
- Obtained approval to implement technical design plans through collaboration with licensed engineers.
- Documented health and safety forms pertaining to site and travel safety.
- Developed strong relationships with the community by participating in user group and municipality meetings.
- Successfully maintained an annual budget of approximately \$100,000 by managing withdrawals and spending.
- Secured funding through writing grant proposals, organizing fundraiser events, and presenting to rotaries.

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## Other Activities and Affiliations

- Freelance Private Tutoring for all levels of STEM topics Aug 2015 - Present
- American Water Works Association – Rocky Mountain Region Oct 2011 - Present
- Society of Environmental Engineers Aug 2011 - Dec 2014

## Awards and Honors

- NASA Goddard Student Poster Session Swoosh Award – 1<sup>st</sup> Place 2016
- RMWEA/RMSAWWA Student Design Competition – 2<sup>nd</sup> Place 2014