

# Heather Rose

## *Water and Sustainability*

### *Profile*

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Heather Rose is a data scientist in the water sector in Austin TX. She is currently a part time employee at the Lower Colorado River Authority where she performs data analytics and creates models to predict water savings. Heather is also a graduate student in the Webber Energy Group at UT Austin, and will soon complete her Master's Degree in Energy and Earth Resources. Her research focus is in energy for water treatment and sustainability. Her research projects include energy for recycling hydroponic wastewater, energy for off-grid treatment and delivery of harvested rainwater, and development of rooftop gardens. Heather is also a musician. She sings, plays guitar and plays out when she can in the local Austin music scene.

### *Employment*

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**Lower Colorado River Authority, Austin TX** May 2019 - May 2020

*Water Conservation Coordinator*

- Creates models for water savings based on different conservation practices and projected demand
- Performs data analysis on current conservation programs with expected water savings and costs of implementation
- Experience working in Python, R, Tableau, Microsoft Excel, and Arcmap GIS for data analysis

**Webber Energy Group, University of Texas at Austin** Sep. 2018 - May 2020

*Graduate Research Assistant*

- Research Area Focus: Onsite water treatment for rainwater and hydroponic wastewater
- Design and run hydroponic growing systems, and onsite water treatment systems
- Water quality testing: Wetlab training in IC and TOC and ICP Analyzers
- Relevant Courses: Water Resources Planning, Water and Wastewater Treatment, Fluid Dynamics, Physical Hydrology, Statistical Analysis, Energy Finance, GIS and Environmental Law

**CleanTX, Austin TX** May 2017 - June 2019

*Chief Operations Officer, Interim Executive Director (Feb. - Apr. 2019)*

- Responsible for running the non-profit organization
- Supervise team members, lead communications with Board of Directors
- Manage member accounts, manage and abide by special budgets
- Maintain and develop relationships with members, sponsors and partners
- Content developer for website and social media, including video interviews
- Event coordinator, including planning and running events for CleanTX
- Lead grant applications and funding efforts

**Webber Energy Group, University of Texas at Austin** Jun. 2016 - Aug.2018

*Undergraduate Research Assistant*

- Designed and built a Green Roof on UT campus, including rainwater harvesting and rooftop garden
- Designed, built and ran experiments for food, energy and water research
- Performed data analysis on residential water usage data

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Austin, TX

[LinkedIn](#)  
[Website](#)

# Heather Rose

## *Water and Sustainability*

### *Education*

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<b>University of Texas at Austin</b> , Austin TX Master's Program in Energy and Earth Resources, Jackson School of Geoscience	Sep. 2018 - May 2020
<b>University of Texas at Austin</b> , Austin TX Bachelor of Science in Physics	Graduated May 2018
<b>Berklee College of Music</b> , Boston MA Bachelors of Arts in Professional Music	Graduated May 2010

### *Water Sustainability Projects*

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<b>Water Treatment for Hydroponic Systems</b> , UT Austin <i>Project Designer and Lead</i>	Jun. 2018 - May 2020
<b>Rainwater Treatment and Delivery, Energy Requirements and Sizing Analysis</b> , UT Austin <i>Project Co-Lead with Dr. Charlie Upshaw</i> -Research published in <i>Water</i> in August 2018, see Publications	Jun. 2017 - May 2018
<b>ReGrow Project</b> , UT Austin <i>Project Designer and Lead</i> for regrowing food scraps hydroponically	Sep. 2017 - Aug. 2018
<b>Solar Water Energy and Thermal Lab Rooftop Garden</b> , UT Austin <i>Designer and Co-Lead</i> for solar powered drip irrigation system and rooftop garden	Sep. 2016 - May 2018

For more info see [website](#).

### *Publications & Presentations*

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H.S. Rose, C.R. Upshaw, M.E. Webber, "Evaluating Energy and Cost Requirements for Different Configurations of Off-Grid Rainwater Harvesting Systems," *Water* 2018, 10(8), 1024 <https://doi.org/10.3390/w10081024>

<b>American Society of Civil Engineers (ASCE)</b> EWRI Congress, Minneapolis MN, Conference Presentation	June 2018
<b>American Society for Engineering Education Gulf-Southwest Section (ASEE-GSW)</b> Annual Conference, Austin TX, Conference Presentation	April 2018

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# Heather Rose

## *Water and Sustainability*

### *Awards*

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University of Texas at Austin Green Fee Grant (2019)  
for the *Onsite Water Treatment for Recycling Hydroponic Wastewater* Project

Energy and Earth Resources Fellowship (2018),  
for academic years 2018/2019 and 2019/2020

University of Texas at Austin Green Fee Grant (2017),  
for the *ReGrow Plant Project in Solar Water Energy and Thermal (SWEAT) Lab Rooftop Garden* Project

Kent and Linda McCormack Scholarship in Physics (2017)  
for the academic year 2018

### *Volunteer Work*

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**Austin Pets Alive**, 2019 - present  
Foster Dog Mom

**League of Women Voters**, 2019 - present  
Active Member for Voter Participation

**College Houses** 2017 - 2019  
Director of Opsis Cooperative House  
Board Member for College Houses  
Incentives Committee Member  
Facilities and Operations Committee Member