

# Grant J. Goedjen

[Goedj011@umn.edu](mailto:Goedj011@umn.edu) | <https://grantjg.github.io/Welcome/>

## Education

### **Doctor of Philosophy, Civil & Environmental Engineering**

University of Minnesota, Minneapolis, Minnesota

**June 2023 (Anticipated)**

### **Master of Environmental Engineering**

Texas Tech University, Lubbock, Texas

**May 2020**

### **Bachelor of Science, Environmental Engineering**

Texas Tech University, Lubbock, Texas

**May 2020**

**Minors:** Bioengineering, Civil Engineering, Biology, & Mathematics.

**Achievements:** Presidents List (2017, 2019, 2020), Deans List (2015, 2017, 2019, 2020)

## Certifications

**Texas:** Engineer in Training, **EIT No. 71799**

**Minnesota:** Engineer in Training, **EIT No. 160572**

## Skills

- **Knowledge Base:** H&H Analyses & Design, Water Resources, Water & Wastewater Treatment, Biological System Design, Environmental System Assessment & Design, Remediation Design, Contaminant Fate & Transport, Environmental Toxicology.
- **Drafting:** MicroStation Suite, Openroads Suite, AutoCAD Suite, AutoCAD Civil 3D, Fusion 360, Microsoft Suite, LaTeX.
- **GIS:** ArcGIS Suite, QGIS.
- **Modeling Software:** ICPR, HY-8, HEC-HMS, HEC-RAS, EPA-NET, EPA SWMM, EQC, ACE, GW Vistas, MODFLOW, HydroCAD, InfraWorks, R.
- **Programming Languages:** R, MATLAB, Python, Microsoft Excel VBA.

## Experience

### **Doctoral Researcher: University of Minnesota, Minneapolis Mn**

**Sept 2020 - Current**

- Designed and conducted experimental methods for advanced detection of contaminants in surface and ground water systems.
- Coordinated sampling and QA/QC plans for intra-state sample collection with state, local, and university organizations.
- Coded statistical analysis and data visualization programs using R, Python, and Microsoft Excel.
- Managed project git repositories and oversaw data storage plans.
- Oversaw field investigations for surface and groundwater sampling.
- Developed analytical methods for the quantification of micropollutants for the St. Paul Ozonation Pilot Water Treatment Plant

### **Engineering Staff: Harkins Engineering, Remote**

**2020**

- Tele-design and collaboration in water resources and water / wastewater engineering.
- Drafting in MicroStation v8i and AutoCAD Civil 3d.
- Residential and commercial water resource design & development.
- GIS support and drafting using ArcGIS suite and QGIS.

### **Engineering Intern: Texas Dept. of Transportation, District Design Office, Lubbock Tx**

**Feb 2019 – Aug 2020**

- Drafting, analysis, and design in Bentley MicroStation, Openroads, SignCAD, ArcGIS suite, and Microsoft Excel.
- Hydraulic modeling and design in HEC-RAS, HY-8, HydroCAD, and HEC-HMS.
- Presentation of proposed design and materials in public town hall meetings.
- Environmental protection, EPIC, and SW3P design, implementation, oversight, and documentation.
- Training of engineering and design staff on operation of modeling software and ArcGIS.

### **Civil Engineering Student: Parkhill, Smith, & Cooper, Lubbock Tx**

**April 2018 – Feb 2019**

- Hydraulic systems design using ICPR, SWMM, HEC-HMS, HEC-RAS.
- 2D and 3D design, surface development, manipulation, and drafting in AutoCAD, AutoCAD Civil 3D.

### **University Housing: Texas Tech University, Lubbock Tx**

**Aug 2017 – May 2018**

### **Graduate Research Assistant: Texas Tech University, Lubbock, Tx**

**May 2016 – Jan 2020**

- Conducted independent research under Dr. Audra Morse (Wastewater treatment), Dr. Theodore Cleveland & Dr. William Asquith (Computational hydraulics & hydrology), and Dr. Siva Vanapalli (Toxicology and Biomicrofluidics).
- Peer reviewed proposed research papers for Water Environmental Research academic journal.
- Collaboration with the City of Lubbock, County of Lubbock, Partnering Universities, TxDOT, and the USGS.

### **International Experience: Tokyo, Japan**

**Summer 2018**

- Presented academic research at the University of Japan & Tokyo Tech University.
- Attended a seminar on the practical applications of supercomputer modeling in civil engineering.
- Engaged in an industrial science conference at the University of Tokyo Institute of Industrial Science.

## Community Involvement

Society of Environmental Professional, *President*

TTU NASA Rasc-AI team, *LaTeX Coder & Editor*

TTU WEAT Design Team, *Design Engineer*

Reeds Ranch & Rescue, *Animal Rehabilitation Specialist*

LYFE Mentoring Program, *Mentor*

American Society of Civil Engineers, *Member*

Texas Society of Professional Engineers, *Member*

Men of STEM Learning Community, *Advisor*

