Jessica Hicks

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Education

University of Florida **Aug. 2017 – May 2021**

Bachelor of Science in Environmental Engineering, Cum Laude *GPA: 3.7*

Awards/Recognition: Dean's list, Florida Bright Futures Scholarship

Relevant Coursework

- Hydraulics
- Hydrology
- Programming for Engineers
- Eng. Statistics
- Environmental Planning
- Professional Communication
- Potable Water System Design
- Water and Wastewater Treatment

Technical Skills & Certifications

- Fundamentals of Engineering (FE)
- ESRI GIS Software (ArcMap)
- HEC-HMS (Hydrologic modeling)
- EPA-Net (Hydraulic Modeling)
- AutoCAD
- Programming (R, Python, VBA, SQL)
- WFR (Wilderness first Responder) and CPR certified
- Data Visualization (Tableau, Rshiny, PowerPoint)

Projects

Lake Caroline Water Treatment Plant | *Senior Project* **Fall 2020**

Potable Water System Design, UF

- Worked in team setting to design a full-scale water treatment plant to treat 11 million gallons per day
- Performed engineering design calculations using Excel VBA, prepared visual aids to present treatment solutions to stakeholders
- Utilized EPA-Net software to design pipe networks and calculate system hydraulic loading
- Evaluated water treatment processes for compliance to regulatory requirements and water treatment standards

Restoration Analysis of Jack Mill Superfund Site, Boulder CO **Spring 2021**

Groundwater Hydrology, UF

- Conducted an in-depth analysis of groundwater contamination and cleanup efforts for mine reclamation superfund site in Boulder County, CO
- Planned stream water and ecosystem restoration activities to ensure human safety
- Used IGW (Interactive Groundwater) to simulate and calculate contaminant plume using real site data

Experience

Intern/Fellow **June 2021 – August 2021**

Environmental Data Initiative *Remote*

- Curated sets of lake and stream data (using R) for use in open-source online platforms (reaching 50+ researchers), which included performing ETL tasks, data analysis, data organization, data cleaning, and metadata wrangling
- Experience applying scripts and tools to EPA and USGS water datasets to optimize large-scale watershed analyses

Undergraduate Research Assistant **May 2020 – August 2021**

Todd-Brown Lab, Environmental Engineering Department, UF *Gainesville, Fl*

- Co-authored a paper on the Cohort Marsh Equilibrium Model (CMEM) to synthesize model evolution and present new developments
- Performed statistical analyses to determine model uncertainties through implementation of a sensitivity analysis, resulting in unique model insights
- Developed graphics and presentations to inform professionals and present model developments

Intern **August 2019 – January 2020**

UF Office of Sutainability *Gainesville, Fl*

- Utilized GIS software to improve cycling infrastructure on campus, resulting in reduced GHG emissions
- Instructed for numerous outreach events to educate students and encourage sustainability practices

Interests

- biking (MTB, touring), climbing, reading, ski, sustainability, music, cave exploration