

Jessica Hicks

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EDUCATION

BACHELOR OF SCIENCE IN ENVIRONMENTAL ENGINEERING, Cum Laude May 2021
University of Florida, Gainesville, FL **GPA: 3.7**
Relevant coursework: Potable Water System Design, Hydraulics, Fluid Dynamics, Hydrology, Professional Communications, Environmental Planning, Water and Wastewater Treatment

PROJECTS

LAKE CAROLINE WATER TREATMENT PLANT Fall 2020
Potable Water System Design, UF

- Worked as a team 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 mining contamination superfund site in Boulder County, CO
- Planned stream water and ecosystem restoration activities
- Used IGW (Interactive Groundwater) to simulate and calculate contaminant plume using real site data

EXPERIENCE

UNDERGRADUATE RESEARCH ASSISTANT May 2020 – May 2021
Todd-Brown Lab, Environmental Engineering Department, UF

- Co-authored a paper on the Cohort Marsh Equilibrium Model (CMEM) to synthesize model evolution and present new developments
- Performed data analysis and technical support using R (Computing language), conducted independent research projects
- Created a GUI (Graphic User Interface) using RShiny to improve the accessibility of CMEM, resulting in an open-source platform for researchers to predict the response of coastal marshes to climate change

INTERN August 2019 - January 2020
UF Office of Sustainability

- Utilized GIS software to improve cycling infrastructure on campus
- Encouraged sustainability at the university through the Office of Sustainability's "sustainable transportation initiative"

TECHNICAL SKILLS AND CERTIFICATIONS

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| • Fundamentals of Engineering | • EPA-Net (Hydraulic modeling) |
| • ESRI GIS software (ArcMap) | • R (Programming) |
| • HEC-HMS (hydrologic modeling software) | • Python (Programming) |
| • AutoCAD | • WFR (Wilderness First Responder) and CPR certified |