

# Ci (Charles) Song

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Portfolio: [cisong10.github.io](https://cisong10.github.io)

## EDUCATION

### University of Michigan

Master of Science in Information (concentration: data science and analytics)

Master of Science in Geospatial Data Science

GPA: 3.93/4.00

**Ann Arbor, MI**

Aug 2022 - Apr 2024

Aug 2021 - Apr 2024

### Beijing Normal University

Bachelor of Science in Environmental Science; Physics (minor)

**Beijing, China**

Sep 2017 - Jun 2021

## WORK EXPERIENCE

### 5 Lakes Energy

Intern

**Northport, MI**

Jun 2023 - Present

- Conduct validation and rectification of the renewable energy contention model dataset, ensuring the reliable input for modeling.
- Redesign the existing model utilizing a machine learning algorithm using Python, which improved the  $R^2$  from 0.48 to 0.64.

### Erb Institute for Global Sustainable Enterprise, University of Michigan

Research Assistant

**Ann Arbor, MI**

May 2022 – Jun 2023

- Conducted a comparative analysis of GHGRP and CAMD, two greenhouse gas reporting datasets, to investigate the power sector GHG emissions reporting errors and their underlying reasons.
- Leveraged Python and identified CO2 emission discrepancies in 98 out of 1363 facilities from 2010 to 2021, aiding in data validation and correction efforts.

### RCAM Technologies

Student Consultant

**Ann Arbor, MI**

Jan 2022 - Apr 2023

- Performed spatial analysis for RCAM's Marine Pumped HydroElectric Storage pilot project in Hawaii. Applied criteria such as water depth, slope to identify the four most suitable sites.

## TECHNICAL SKILLS

- **Tools & Technologies:** SQL; Tableau; Python (Pandas, Hadoop, Spark, Scikit-learn); Jupyter Notebook; R; Git; AWS; MS Excel; ArcGIS Pro; ERDAS Imagine; Google Earth Engine.
- **Industry Knowledge:** Data Analysis; Machine Learning; Database Design; Data Visualization; Statistical Analysis; Spatial Analysis; Life Cycle Assessment.

## PROJECTS

### PCS - Global

Student Consultant

**Ann Arbor, MI**

Sep 2022 – Dec 2022

- Led a five-member team in evaluating the user experiences of PCS' Behavior Style Profile assessment through interviews with administrators, consultants, and clients of PCS. Compiled findings into a report, offering recommendations for workflow automation and user experience enhancement.