

FITZWILLIAM KEENAN-KOCH

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CAREER SUMMARY

Motivated, interdisciplinary masters student with a background in technical writing, data science, and agricultural systems. I currently work at the SEE LAB at the University of Vermont on industrial ecology projects in life cycle analysis and renewable energy using SimaPro, Python, and arcGIS. My passion for technology and computation combines with a deeper interest in scalable and sustainable environmental solutions.

EDUCATION

University of Vermont

Master of Science, Complex Systems and Data Science

August 2024 – Current

GPA: 4.0

University of Chicago

Bachelor of Arts, English Language and Literature

Achievements: Dean's List (2014-2018), Faculty Nominated Mueller Best Senior Thesis Prize

September 2014 – June 2018

GPA: 3.75

EXPERIENCE

Graduate Research Assistant

SEE Lab @ University of Vermont

December 2024– Present

Burlington, Vermont

- Perform literature reviews to identify and synthesize academic sources into research questions
- Conduct geospatial meta-analysis of Life Cycle Analyses (LCA) in SimaPro, Brightway, and arcGIS
- Enhance the energy consideration of LCA by integrating co-simulation with additional physics simulation environments

Prep Cook

Taco Gordo

February 2023– May 2024

Burlington, Vermont

- Worked quickly, accurately, and calmly under pressure and strict time constraints
- Prioritized structure and communication to complete efficient, self-directed projects

Field Tech

Intervale Conservation Nursery

April 2022– November 2022

Burlington, Vermont

- Planted and stewarded native trees in production fields and riparian buffers throughout Vermont with volunteers

Technical Writer and QA

Epic Systems

April 2019– November 2020

Madison, WI

- Researched, wrote, and maintained software documentation including user manuals, release notes, and start-up guides
- Managed documentation timelines for software developer, installation, and QA teams
- Collaborated with subject matter experts and customer reps to deliver user-friendly and creative training materials

TECHNICAL SKILLS

- Python, particularly WebScraping, Data Visualization, Machine Learning, and Large Language Model applications using Pandas, Numpy, Playwright, BERTopic, Seaborn, Matplotlib, Spacy, HuggingFace packages
- Geospatial data analysis and visualization using arcGIS, QGIS, and Python Geopandas packages
- Version control with both SVN and git
- Content management and documentation in a Software as a Service model
- Life Cycle Analysis in SimaPro and Brightway Python package

NOTABLE GITHUB PROJECTS

Trope Topic Modeling | 2024 Class Project Investigating Subcultural Formulation in Movie Reviews and tvTropes

- Webscrapes Letterboxd for reviews and metadata and tvTropes for trope tags using playwright
- Performs Topic Modelling on Letterboxd reviews using BERTopic and compares results to trope labels

Climate Migration | 2024 Machine Learning Class Project exploring feature importance of climate variables

- Orchestrates data pipeline for cleaning and merging four government datasets into distinct ML models for migration prediction