

Sander Cohen-Janes
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Education

Brandeis University
GPA: 3.79

Expected Graduation, Spring 2023

Research Experience

Giesecking Lab

Spring 2020-Present

Undergraduate Researcher

- Benchmark DFT functional performance by optimizing thousands of Cu and Ag nanoclusters with Gaussian 16 and comparing their energy and geometry metrics to those calculated by Coupled Cluster methods
- Investigate methods to effectively visualize data using Excel and Python
- Independently developed Bash and Python skills used to streamline workflow, which included the automatic recognition and resolution of several common optimization errors
- Train a new hire to similarly benchmark Au nanoclusters, as well as introduce Linux functionality and basic scripting skills
- Effectively communicate findings to a wide audience with varying levels of experience in the field.

Rosen Lab

XSEDE EMPOWER Apprentice

Spring Semester 2022

- Learning to compare *de novo* methods of drug design that utilize machine learning.

Additional Experience

Waltham Group: General Tutoring

Matching Coordinator

Fall 2019-Present

- Manage the General Tutoring Database, which includes hundreds of past and present tutors and tutees and entails tracking multiple criteria per person, including background check status, preferred subjects, and permission slips
- Automate the matching process with Python, which was previously done manually over the course of hours
- Pioneer more effective ways to receive and ingest data regarding match acceptance status and tutor satisfaction
- Training new tutors in risk management and teaching new coordinators how to use the database and the new matching code

Relevant Courses

Inorganic Chemistry, Classical and Stat. Thermodynamics, Quantum Mech. and Spectroscopy, Adv. Organic Chem. Lab, Multivariable Calculus, Linear Algebra.

Honors

M. R. Bauer Summer Research Fellowship, *Division of Science at Brandeis University*

Humanities Fellow, *Brandeis University*

Sea Scout Quartermaster, *Boy Scouts of America*