# Justin Kleidermacher

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### **EDUCATION**

The University of Chicago - Joint Bachelors and Masters

Chicago, IL 2021 - 2025

Computer Science

**GPA**: 3.8/4.00 — Dean's List

**Relevant Coursework:** Computer Systems, Computer Security, Discrete Math, Theory of Algorithms, Data Science, Math for the Physical Sciences

Miami Beach Senior High School - Valedictorian, National Merit Scholar

Miami, FL

**GPA:** 4.00/4.00; SAT: 1560 (800M, 760R)

2017 - 2021

### WORK EXPERIENCE & COMMUNITY SERVICE

Data Science Institute @ UChicago - (https://geodacenter.github.io/reactgeoda/) Intern

Chicago, IL 2023 – Present

Refactored the GeoDa software into an interactive web project using React and Next.js

Designed a dynamic, dashboard style-web interface with Figma and React-Grid-Layout

- Created functionality for loading, processing, and storing different spatial data formats (GeoJSON, etc)
- Tracked user selections of data, variables, and analysis methods using Redux
- Implemented GeoDa's spatial and quantitative methods using a kepler.gl map component
- Presented the final product in a symposium with a poster and video

Threedle - Computer Graphics Research Collective (https://3dl.cs.uchicago.edu/) Researcher

Chicago, IL

2022 - Present

- Identified shortcomings in prominent loss functions used in computer graphics
- Implemented a novel loss function with PyTorch, improving mesh deformations
- Developed controls for text-driven 3D feature growth and stylization for input meshes
- Integrated and tuned state-of-the-art optimizers and models for comparing text and images
- Experimented with diverse meshes and prompts on a GPU cluster for visualizing results

PJ Pillows (Instagram: @pipillows)

Miami, FL

Founder and President

2017 - 2022

- Started an e-commerce company raising \$14,000+ for Alzheimer's research
- Donated 100+ handmade photo pillows to Alzheimer's patients

### **TECHNICAL PROJECTS**

Personal Website (https://justinkleidermacher.com/)

Designed personal website using HTML, CSS, and JavaScript

# **Chess Practice Bot**

Created a Python-based chess interface with an adjustable AI opponent for practice

### Smash Bros. Stage Selector

Trained a neural network on Smash tournament data to select the optimal stage for any matchup

#### EXTRACURRICULAR EXPERIENCE

**UChicago Chess Club** 

Miami, FL

2021 - Present

Attend weekly matches and tournaments with the UChicago chess team

Peak USCF rating of 1960. Placed top two in Florida and top ten in the nation

UChicago CS Student Activities Council (hack@uchicago)

Chicago, IL 2021 - Present

Participate in Hack Nights with topics including machine learning to computer security

**Speech and Debate** 

Miami, FL

Public Forum

Member

2017 - 2021

Florida public forum state champion in 2020 and placed top twenty in the nation in 2019

## **SKILLS & INTERESTS**

**Programming:** Python, C/C++, JavaScript, HTML/CSS, Racket, R

**Technologies & Libraries:** Git, PyTorch, Next.js, React

Languages: English, Spanish

Interests: Philosophy, Chess, Beach Volleyball, Super Smash Bros, Poetry, Fantasy Football