# 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 - (<a href="https://geodacenter.github.io/reactgeoda/">https://geodacenter.github.io/reactgeoda/</a>)

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 (<a href="https://3dl.cs.uchicago.edu/">https://3dl.cs.uchicago.edu/</a>) 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: @pjpillows)

**Miami, FL** 2017 – 2022

Founder and President

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

Chicago, IL 2021 – Present

Member

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

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

Speech and Debate

2021 – Present

Public Forum

Miami, FL 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