

# Danielle Croft

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## EXPERIENCE

### **University of Notre Dame**, South Bend, IN – *Teaching Assistant for Operating Systems*

August 2023 – Present

Teaching, helping, and grading a junior level computer science class that focuses on the structure and workings of operating systems.

### **USAA**, San Antonio, TX – *Software Engineering Intern*

May 2023 – August 2023

Joined a team that worked on modernizing API calls within the call center. Specifically worked on internal permissions of the system to increase the amount of information delivered to the customer.

### **University of Notre Dame**, South Bend, IN – *Teaching Assistant for Systems Programming*

January 2023 – May 2023

Taught, helped, and graded a sophomore level computer science class that focused on Bash, Python, and C programming.

### **Johnson & Johnson**, Milpitas, CA – *Project Intern*

May 2022 – August 2022

Focused on creating a simple algorithm for approximating an S-curve to apply to an FPGA within a cataract machine. Algorithm is in the process of getting a patent.

### **University of Notre Dame**, South Bend, IN – *Head Teaching Assistant for Logic Design*

January 2022 – December 2022

Assisted students taking a sophomore level computer engineering class. Managed the TAs that assisted the Logic Design class.

## PROJECTS & PATENTS

**Patent for Algorithm to Estimate S-Curve in Review:** Created during my internship with Johnson & Johnson. A simple algorithm designed to be used on an FPGA without taking up much space in memory.

**Genuine Signature Recognition CNN:** A Siamese neural network designed to recognize if specific signatures are forged or genuine. Created as a final project for Neural Networks course at Notre Dame. Project is on a public repository on my GitHub.

**Peer-to-Peer Hashtable:** Shared hashtable between multiple clients that bypass the need for a central server. Created as a final project for Distributed Systems course at Notre Dame. Project is on a public repository on my GitHub as well as my project partner's website: <https://begloff.com/posts/p2phashtable>

**Database for Cultivate Food Rescue:** Built a database for non-profit company "Cultivate Food Rescue" located in South Bend. Created as a semester project for Database Concepts course at Notre Dame.

**Wordle Solver:** Created a web app with Python Flask that gives recommendations on what words to play with the popular word game "Wordle". Created as a final project for Data Structures course at Notre Dame. Project is on a public repository on my GitHub.

## EDUCATION

### **University of Notre Dame**, South Bend, IN – *B.S. in Computer Science*

August 2020 – May 2024 (expected)

Current GPA: 3.805

## PROFICIENT IN

C / C++  
Python  
Java / JavaScript  
MatLab  
LabView  
Verilog  
SQL

## AWARDS

**Deans's List for Spring 2021 and Spring 2022:** GPA in top 30% of the Engineering School (3.94 and 3.87)

**National Merit Scholar:** Chosen based on PSAT score (1500)

**Officer Spouses' Club Scholarship:** Awarded to children of active US military officers

**Tailhook Scholarship:** Awarded to descendants of members of the US Navy