

# Daniel Lohn

✉ dlohn@ucsb.edu • 🌐 daniellohn.com • 🔗 linkedin.com/in/daniel-lohn • 📍 San Jose, CA

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## Education

University of California, Santa Barbara, Class of 2023

- B.S. in Computer Science, Cumulative GPA: 3.97
- College of Engineering Honors Program
- Relevant Coursework: Artificial Intelligence, Operating Systems, Undergraduate Research (3 Quarters), Data Structures & Algorithms, Adv. App Programming

## Skills

- C/C++, Java, and basic Python programming
- JavaScript, Node.js, React, HTML, and CSS
- Experience working in an Agile / Scrum environment
- Proficiency with tools: UNIX, Shell Scripting, Git, GitHub, Heroku, Firebase, MongoDB, Unity, Open3D, PyTorch, VS Code, and Microsoft Office

## Experience

**Computer Vision Student Researcher** – UC Santa Barbara

*Sep 2020 – Aug 2021*

- Developed a tool in Unity to process 3D indoor scene datasets and generate synthetic data for CV tasks.
- Used tool to generate RGB images, depth maps. Used data as input to five pre-trained 3D reconstruction networks.
- Wrote up how variation of the data impacts network performance, paper accepted to ILDAV workshop at ICCV 2021.

**Data Science Intern** – UC Santa Barbara Data Science Club

*Oct 2019 – Mar 2020*

- Provided assistance to small teams of students working on their own projects involving data collection and analysis.
- Assisted teams with data collection by writing Selenium scripts to scrape and archive data from web sources.
- Presented final project to a large audience of fellow students and a review panel.

**Senior Swim Instructor and Lifeguard** – Mayfair Community Center Pool, San Jose, CA

*Jun 2019 – Jun 2021*

- Taught children and adults how to swim, instructing them on basic strokes and maneuvers in water.
- Maintained a vigilant watch over the pool during recreational swim hours to ensure participant safety.
- Responsible for opening and closing the pool in the absence of the pool manager, among other duties.

## Projects (View more info and my full list of projects at daniellohn.com)

**UCSB Polls** – Web app that allows anyone with a UCSB email to search, create, and vote on polls.

*May 2021*

- Implemented a ReactJS front end, which interfaces with Auth0 and an Express server to authenticate and fetch users.
- Wrote backend code for the Express server to get and update user info for the profile page using a Firebase database.

**SigNN** – Real-time ASL (American Sign Language) Alphabet Translator.

*Jan 2020 – Oct 2020*

- A computer-generated neural network architecture generates sign predictions from pose tracking data.
- Used Google's machine learning pipeline MediaPipe to enable real-time sign language translation on mobile devices.

**Password Vault** – Encrypts and decrypts user-provided passwords using 256-bit AES encryption.

*Sep 2020*

- Wrote Python scripts to handle key generation, encrypting, saving, loading, and decrypting passwords with a saved key.
- Created an intuitive graphical interface for users not necessarily familiar with cryptography.

**Construction Charlie** – Video game featuring action-packed platforming gameplay.

*Sep 2019*

- Developed in Java using the Swing graphics library, featuring the ability for users to create and play their own levels.
- After all desired features were implemented, I released the game on the popular desktop gaming platform Steam.

## Publications

Pranav Acharya\*, Daniel Lohn\*, Vivian Ross\*, Maya Ha, Alexander Rich, Ehsan Sayyad, and Tobias Höllerer. "Using Synthetic Data Generation to Probe Multi-View Stereo Networks," In *Proceedings of the International Conference on Computer Vision (ICCV)*, to appear.

## Honors and Awards

- **Dean's Honors Recipient, 6 Quarters** – Awarded to students with a GPA of 3.5 or higher
- **SigNN** – Winner, Best Overall, UCSB Data Science Project Showcase
- **Cloudflu** – Winner, Best use of Domain.org prize, BASEHacks 3.0
- **National AP Scholar** – Received for scoring 4/5 or 5/5 on at least 8 AP exams taken

*Jun 2021*

*Jun 2020*

*Sep 2019*

*Aug 2019*