

Daniel Lohn

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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