

NAVID SHAMSZADEH

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GitHub: github.com/nshamszadeh/ **Portfolio:** navidshams.com/projects/

EDUCATION

University of California Santa Barbara: 3.38 GPA

September 2015 - 2020

BS in Computer Science

BS in Mathematics

EXPERIENCE

HRL Laboratories

June 2020 - September 2020

Machine Learning Engineering Internship

- Designed and engineered an automated data generation system to interface with CARLA vehicle simulator which sped up simulation data generation by up to 10 times the previous rate.
- Data generation automation using **bash** and Open Message Massing Interface (**OpenMPI**) in **C**.
- Wrote data handler component to package and move data from distributed compute nodes' individual local storage to a global storage area. Wrote simulation component to specify parameter sets per compute node.

UC Santa Barbara: Computer Science Department

September 2017 - December 2017

Computer Science Tutor

- Tutored introductory computer science students under the mentorship of two professors.
- Held weekly office hours.
- Instructed and guided students through various **Python** based projects.
- Lectured review sessions for midterm and final exam preparation.

Naval Postgraduate School

June 2014 - August 2014

Cybersecurity Internship

- Migrated Carnegie Mellon capture the flag competition (PicoCTF) to a local **Nginx** web server.
- Arranged for the team to make future modifications to convert the CTF into an educational game used to train personnel and staff on cybersecurity fundamentals.
- Learned basic cryptography through writing a text deciphering program in **Python**.

PERSONAL PROJECTS

Machine Learning Computer Vision

Python, OpenCV, Numpy, Git

- GitHub: github.com/nshamszadeh/object-erase
- Full Description and Demo: navidshams.com/projects/erase_objects/erase_objects
- Summary: Connected the pipelines of two computer vision machine learning models (MaskRCNN and Generative Image Inpainting) To detect specified objects in videos, erase them, and fill in the background using machine learning based inpainting techniques.

TECHNICAL STRENGTHS

Programming Languages

C, C++, Python, Mips, Bash, Java, Javascript

Software & Tools

L^AT_EX, Linux, Docker, MPI, OpenMP, CUDA, Numpy, Scipy, Vivado, Git, Postgresql, OpenCV, HTML5, CSS, React, Bootstrap, Flask, AWS (EC2), Heroku, Nginx, Catch2, TravisCI