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EDUCATION B.S. Applied P

B.S. Applied Physics, Math, and Computer Science State University of New York (SUNY) at Binghamton Aug 2020

Binghamton, NY

summa cum laude

EXPERIENCE Annunciation House

Mar 2022—Aug 2022

Shift Coordinator

El Paso. TX

Helped refugees detained by border patrol reconnect with their families or sponsors, travel to their host cities, and attend their mandated court appearances.

Casa Tochan Jan 2022—Mar 2022

Volunteer

CDMX, MX

Aided migrants in finding jobs, renting apartments, and petitioning the government for asylum, residency, citizenship, driver's licenses, work permits, and vaccinations.

Tree of Hopes Sep 2021—Dec 2021

Volunteer

Juarez, MX

Coordinated with sponsors, lawyers, police, government officials, and healthcare professionals to support guests and safeguard their civil and informational rights.

RESEARCH

SUNY Binghamton

Aug 2017—May 2020

Binghamton, NY

Research Assistant
Advisor: Alexey Kolmogorov

Employed an evolutionary algorithm and neural network to search for stable alloy crystal structures. Helped parallelize the group's MAISE software package.

California Institute of Technology

Jun 2019—Aug 2019

Summer Undergraduate Research Fellow (SURF)

Pasadena, CA

Advisor: Nai-Chang Yeh

Performed scanning tunneling microscopy/spectroscopy of topological defects in the surface state of pure and Cr-doped (BiSb)₂Te₃-bilayer topological insulators.

Sapienza University of Rome

Jun 2018—Aug 2018

Summer Research Assistant

Rome, IT

Advisor: Stefano Giagu

Constructed a convolutional neural network to classify particle collisions for the DarkSide-20k experiment. Generated nuclear and electron recoil event data.

National Aeronautics and Space Administration (NASA)

Jun 2017—Aug 2017 Mountain View, CA

Software Engineering Intern **Advisor:** Christopher Teubert

Built a library in C++ and MATLAB to represent/interpret battery metadata subject to varying degrees of uncertainty for autonomous drone fleets.

Cornell University

Jun 2016—Aug 2016

Summer Research Assistant

Ithaca, NY

Advisor: Ross Knepper

Developed an algorithm in C++ and ROS that enabled an industrial robot to identify the depth, shape, and texture of various physical objects. Implemented procedure to gauge compatibility of distinct objects based on 3D infrared point cloud datasets.

SKILLS

Languages: English (*native*), Spanish (*fluent*), French (*working*) Portuguese (*elementary*) **Programming Languages:** C++, C, Java, Python, MATLAB, OpenMP, SQL, LATEX **Technologies:** Windows, macOS, Word, Excel, PowerPoint, Linux, Git, Vim