# Raymond Muller | Purdue University

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## Summary

Graduate Computer Science student with a computer vision, machine learning, and security background. I have interned at several government institutions working on various computer-related applications spanning computer vision, network security, software engineering, and web development. I have developed 3 major open-source projects, including one used by the Mount Diablo Unified School district. I am currently working on academic research on autonomous systems and perception. I am also skilled in multiple different martial arts, have an open water diving certification, and I am a former Western States Chess Champion.

## Experience

**Graduate Teaching Assistant** – Purdue University

Aug 2020 — Present

Working with instructors and teams of 3-4 Teaching Assistants to lead instructional labs.

**Computational Engineering Student Intern** — Lawrence Livermore Ntnl Labs — Summers 2019 — Prsnt Over the course of nearly 4 years I have worked on various aspects of Ground Penetrating Radar Systems, including implementing object detection systems, creating UIs through full stack development, and dockerization of certain

applications.

**Coach** — Apex Movement Norcal

Aug 2018 — Aug 2020

Main responsibilities included teaching parkour to lower level youth and adult classes, monitoring open gym, and providing assistance to the front desk.

**Student Intern** — CCC Department of Information Technology

Oct 2018 — May 2019

Worked on web and software development for Contra Costa County Tax Collector's Office.

**Teaching Assistant** — California State University East Bay

Jun 2018 - Aug 2018

NSF-Technology Pathways TA under Dr. Jiaofei Zhong for Summer Quarter 2018. Work involved creating homework, slides, presentation materials, and assignments for students in the CS200 course using Python, with a Health-Sciences theme.

## Education

### Purdue University — PhD, Computer Science

2020 - 2024

Working in computer vision and security research under Dr. Berkay Celik.

#### **California State University - East Bay** – MS, Computer Science

2019 - 2020

Graduated with Master's of Science in Computer Science with a 3.97 GPA.

# ${\bf California\ State\ University\ -\ East\ Bay-BS,\ Computer\ Science}$

2017 - 2018

Graduated Summa Cum Laude in December 2018.

### **Publications**

- DRIVETRUTH: Automated Autonomous Driving Dataset Generation for Security Applications (AutoSec 2022)
- Physical Hijacking Attacks against Object Trackers (ACM CCS 2022)

## Talks / Lectures

 Guest Lecturer at Purdue, CS 592 IoT/CPS, "Machine Learning for Perception and Decision Making (April 4<sup>th</sup> 2022)

### Certifications

- Certificate of Robotics Engineering and Programming with Vex (Villanova University)
- First Degree Black Belt in Tae Kwon Do (World Taekwondo Fededration)
- Open Water Diving Certification (SDI)

### Skills

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Computer Vision • Python • Computer Javascript • Robotics • Penetration Testing • Leadership • Web Development • Machine Learning • Research • C++
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### Honors and Awards

- General Motors Security AutoDriving Security Award (April 24, 2022)
- Western States Chess Champion.
- Junior Olympic Swimmer