# Joshua Zhang

## Engineer

High school student looking for a Web Development or DevSecOps internship. 6+ Years of programming experience, 4+ years of cybersecurity experience, 1 year of research experience.

#### **EXPERIENCE**

## **Identifying NEOs using Machine Learning**

June 2021 - May 2022

Online Research

- Used Tensorflow to identify 40+ Near Earth Objects (NEOs) within NASA's WISE database.
- Designed and optimized a neural network that subtracts two images to identify moving objects.
- Learned and used image interpolation to fill in missing pixels in images.
- Won 1st place at Alameda Regional Science Fair

## **COSMOS Quantum Mechanics**

July 2022 - August 2022

UC Davis, CA

- Completed a 4 week program involving introductory courses in quantum mechanics and programming in C.
- Worked with a team of five to build a working Scanning Tunneling Microscope to scan the atomic surface of a graphene sample.
- Wrote computer programs to simulate quantum tunneling in a variety of different geometric lattices, including linear, rectangular, and honeycomb (hexagonal) lattices.
- Wrote a computer program to simulate the time evolution of a quantum mechanical system using Spectral Decomposition Theory.
  It could reproduce the special case of a perfect Quantum State
  Transfer discovered 10 years ago.

#### **EDUCATION**

#### Monta Vista High School (Student)

August 2019 - June 2023

GPA: 3.93, SAT: 1550, ACT: 35

 Relevant Courses: AP Calculus BC, AP Physics C, AP Physics 1, AP Computer Science A

## **West Valley College**

August 2022 - December 2022

• Relevant Courses: Linear Algebra, Differential Equations

#### **AWARDS**

## **USAPHO Honorable Mention (Qualifier 2x)**

2021 & 2022

• Top 400 on nationwide F=MA exam.

## **National Cyber Scholar**

2022

Top 1152 Cybersecurity nationwide.

## PicoCTF Top 40 (2x)

2021 & 2022

• Fweefwop Team Placement, out of 1000+ teams.

#### **CONTACT**

- · Cupertino, CA (Open to Remote)
- · +1-408-888-8361
- · zhy0224@gmail.com
- linkedin.com/in/joshua-zhang-63 a095236/
- · github.com/Teddygat0r

#### **SKILLS**

#### Languages:

- · HTML
- · CSS
- · Javascript / NodeJS
- · PHP
- · MySQL
- Python
- Java
- · Bash

### Cybersecurity:

- Web Exploits (SQLI, XSS, CSRF
- Cryptography
- Cloud Security

#### Tools and Frameworks:

- React
- · Vue 3
- Nuxt 3
- TailwindCSS
- Bootstrap
- Django
- · Python (BS4, Numpy, Matplotlib)

#### **OTHER**

- Co-founder of Fweefwop, a four year old cybersecurity club.
- · Co-host of FweefwopCTF
- · Strong Problem Solver
- · Fluent in Chinese
- Filmed and edited a variety of short films