Michael Li

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https://ml5885.github.io/AboutMe/

EDUCATION

Amador Valley High School, Pleasanton, CA　　　　　　　　　*2018 – Expected Graduation (2022)*
- AP Courses: Computer Science A (5), Calculus BC (5), Biology (4), World History: Modern (5), Computer Science Principles, Psychology, Statistics, English Language and Composition
- SAT (1580/1600), Cumulative GPA (3.93), Junior Varsity Swim Team (2018-Present)

EXPERIENCE

Founder & Developer, COVIDCatcher　　　　　　　　　　　　*2021 – Present*
- Developed a low-cost, multimodal, machine learning based app for detecting COVID-19 symptoms and coughs
- Objective: To help immunocompromised and elderly understand symptoms w/o leaving the safety of their homes
- App currently live at https://www.c0vidcatcher.org
- Awarded 1st place at Synopsys Science & Engineering Fair, California Science & Engineering Fair Qualifier, Bay Area BioGENEius Finalist - presented to panel of biotechnology leaders

Shadow CTO, Umlaut Foundation, Pleasanton, CA　　　　　　　*2020 – Present*
- Designed and implemented podcasting features, article content management, and newsletter templates
- Umlaut is a non-profit that connects Californian foster youth with volunteer-sponsored mentorship in diverse topics
- Maintained Umlaut Foundation website across multiple devices and browsers(i.e. Chrome, Safari, iPhone, Android), and address bugs such as overlapping text/images

Public Forum Debate, AVHS Speech and Debate Club　　　　　　*2018 – Present*
- Developed skills in critical thinking, rhetorical strategy, and persuasion
- Researched and debated a diverse range of topics from Medicare for All and UBI to West African urbanization and Venezuelan sanctions
- Effectively communicate ideas persuasively and adapt to real time situations

Lead Tutor, ACE Coding Club　　　　　　　　　　　　　　　*2020 – Present*
- Created curriculum and taught advanced C++ programming course to middle schooler and high schoolers from nearby school districts, covering topics such from recursion to Artificial Intelligence
- Designed and led a coding workshop for ACE Code Day teaching students about machine learning using the OpenCV computer vision library
- Built and demo'd a neural network detecting face-mask compliance from video feed in real-time

Software Engineer, Amador Valley Robotics Club　　　　　　　*2018 – Present*
- Student-run robotics club that competes annually with collegiate teams in RoboNation International RoboSub
- Designed and executed on all computer vision related tasks, critical for helping the vehicle navigate the field (previous years included tasks such as detecting dice, and passing through a gate)
- Wrote code leveraging OpenCV for object detection and image processing
- Coordinated with machine learning team to create ML workflows that perform real-time object detection

Software Developer Intern, Omou Learning　　　　　　　　　　*July 2020 – Present*
- Omou is a digital learning space for tutoring centers to connect student, parent, and teacher communities.
- Built Google Classroom integration to enable users to sign in via Google and invite/unenroll students from Google Classroom

- Worked with React framework and built features using HTML, CSS and JS

Researcher, Lumiere Research Program *Jan 2021 – March 2021*
- **"A Programmable Network Router Design for Faster Stateful Packet Processing"**
- Proposed a novel design for a parallel processing router that guarantees functional equivalence, with a fast and flexible processing speed, to address processing speed limits in a Post-Moore world
- Worked with Vishal Shrivastav, former Yale Postdoctoral Associate/Purdue Assistant Professor, on independent router design research project; pursuing publication
- Learned skills in time-management, organization, and problem-solving, and developed an understanding for academic language and the research process

Performer, Winner's Concert, United States Open Music Competition *May 15, 2021*
- Performed Grieg Notturno, Op. 54 No. 4 in front of live audience of 100+ people at the Oakland California Temple

SKILLS
- Java (3 yrs.), Speech and Debate (3 yrs.), C++ (3 yrs.), Web Design using *WebFlow* (1 yr.), Web development using HTML, CSS, JS (3 yrs.), Python (1 yr.), Piano (12 yrs.)

AWARDS & RECOGNITION
- **Bay Area BioGENEius Challenge**, Finalist, 2021
- **California Science and Engineering Fair**, Qualifier, 2021
- **Synopsys Alameda County Science and Engineering Fair**, First Place in Mathematics/Computer Science, 2021
- **HackItShipIt Hackathon**, First Overall, 2020
- **Data Day Grind Hackathon**, Best Data Visualization, 2020
- **To the Moon and Hack Hackathon**, Third Overall, 2020
- **USA Computing Olympiad**, Silver Division.
- **Collegeboard**, AP Scholar with Honor.
- **United States Open Music Competition**, First Place - 5C Open Solo (Romantic Period), 2021
- **MTAC Alameda County East Piano Competition**, Second Place - Division C (Senior), 2020
- **United States Open Music Competition**, Second Place - Piano Treasury of Romantic Composers (Senior), 2019
- **MTAC Alameda County East Piano Competition**, Second Place - Division B (Junior), 2018
- **MTAC Certificate of Merit**, Piano - Level Advanced with State & Branch Honors, 2019
- **Amador Valley Swim Junior Varsity**, Athletic Award A, 2019