# Edwin Chang

I'm a high school senior with a keen interest in computer science and technology, and how they can influence our society's future.

#### **EDUCATION**

Davis Senior High School, Davis, CA — GPA (unweighted): 3.96

2021 — Present

- Relevant Courses: AP Calculus AB, AP Calculus BC, AP Chemistry, AP Physics, AP Biology, Advanced Robotics Honors, AP U.S. History, AP English Literature and Composition, AP U.S. Government, AP Macroeconomics
- Self-Studied AP Courses: AP Computer Science A, AP Physics C: Mechanics, AP Physics C: Electricity and Magnetism (to be taken), AP Statistics, AP English Language and Composition
- Dual Enrollment Courses: Calculus III

Michigan Math and Science Scholars — Mathematics of Decisions, Elections, and Games Summer STEM Institute — Conducting Data Science Research, Programming for Data Science AwesomeMath Summer Program — Number Theory

Summer 2023

Summer 2021

Summer 2020

## TECHNICAL EXPERIENCE

FIRST Robotics Competition Team 1678: Citrus Circuits

August 2021 — Present

Software Scouting Front-End Developer

- Led design and implementation of Android and desktop apps using the Kotlin programming language for a world-leading FRC robot scouting system.
- Trained newer members on maintaining and developing the scouting system.
- Wrote whitepaper on the scouting system's architecture and design, and publicly released the source code for other teams to use
- Was a key participant in the team's competitive strategy discussions and alliance selections.
- Contributed significantly to the team winning its division at the FIRST World Championship in both 2022 and 2023.
- Led the Shelter Finder outreach project, developing a web app to help police officers in the local community locate available homeless shelters for those in need.
- Oversaw Shelter Finder development and collaborated with community members.

UC Davis Molecular Computing

June 2022 — Present

Software Engineering Intern under Professor Dave Doty

- Conducted software-based research on DNA nanotechnology by developing the web app scadnano, a tool for designing synthetic DNA nanostructures.
- Used the Dart programming language with React Redux.

Personal Projects

- Salvage: An Android app written in Kotlin for bookmarking and organizing links.
- Previewception: A Kotlin library for previewing Jetpack Compose UI components with different arguments.
- Android App Template: A template for Android apps with a scalable architecture, self-populating the app metadata when used.
- Peruse: An Android app for browsing Hacker News.
- School Schedule: An Android app for viewing a school's bell schedule.

# VOLUNTEERING/LEADERSHIP

Davis Coding Club

August 2021 — Present

Vice President — Project Organizer

- Taught at Python and Java workshops for elementary school students.
- Wrote problems for and organized the Davis Coding Tournament in 2022 and 2023 for elementary and middle school students.

#### Head Counselor

- Led team of counselors at summer camp hosted by Citrus Circuits.
- Taught students through 8th grade teamwork through building and programming VEX IQ robots.

# DSHS Mu Alpha Theta Math Club

August 2021 — Present

Vice President — Website Lead

• Wrote problems for and organized the Davis Math Tournament in 2022 and 2023.

## COMPUTING SKILLS

Languages	Python, Java (USACO Silver), Kotlin, C++, Rust, XML, HTML, CSS, JavaScript, TypeScript, Dart, LaTeX,
	Markdown, Typst
Frameworks/OS	Linux, Windows, Android, Jetpack Compose, Compose Multiplatform, Google Apps Script, Manim
Other Programs/Software	Git, GitHub, Zsh, JetBrains IDEs, Visual Studio Code, Tailscale

### Extracurriculars

## Boy Scouts Troop 139 Davis

- Patrol Leader
- Star Rank
- Community service participation: Scouting for Food, Christmas tree lot, city event cleanups, regional park maintenance
- Summer camps

#### Flute

- Music Teachers' Association of California Certificate of Merit Level 9
- Davis Youth Flute Choir (2018—): annual summer/winter camps
- Concerts: retirement community performances, holiday performances in parks

#### Sports

- Tennis Davis Senior High School Junior Varsity Team (Spring 2021, 2022, 2024)
- Cross Country Davis Senior High School Frosh/Soph Team (Fall 2021)
- Swim recreational

#### Family Responsibilities

- Dog walking
- · Laundry, garbage, house cleaning
- Yard work

#### Hobbies

- Biking
- Running
- Photography
- Singing
- Reading