

David Chen

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Education

Harvey Mudd College

B.S. in Computer Science, Harvey S. Mudd Merit Scholar

Claremont, CA

Aug 2021 - May 2025

Relevant Coursework (ongoing): Principles & Practice: Computer Science, Single & Multivariable Calculus

Princeton High School

GPA: 4.0/4.0 (4.7/5 weighted), National Merit Scholar, National AP Scholar

Princeton, NJ

Sep 2017 - Jun 2021

Relevant Coursework: AP Computer Science, Data Structures and Algorithms, Multivariate Calculus and Linear Algebra, AP Statistics

Independent Study

2020 - 2021

Stanford graduate courses (CS221, 231n, 224n, 230): Artificial Intelligence, Computer Vision, Natural Language Processing, Deep Learning

Work Experience

Scout AI (backed by Y Combinator)

Mountain View, CA

SOFTWARE ENGINEER INTERN

May 2021 - Aug 2021

- Designed and built merchant-facing real-time restaurant promotion iOS app with Swift/Firebase, created demos for pitch deck
- Set up Auth/Firestore to sync with consumer app, emulated and deployed Node.js Cloud Functions to notify users and clean data
- Brainstormed and implemented business strategies based on restaurant feedback centered on loyalty and growth

Google

Mountain View, CA

COMPUTER SCIENCE SUMMER INSTITUTE

July 2021 - Aug 2021

- Expanded and presented 15 daily projects with JavaScript/Firebase, mentored by Google engineers in advanced track
- Co-developed a crowdsourced trip planner final project and presented to Google employees and community leaders

Slingshot

Pittsburgh, PA

SOFTWARE ENGINEER

Oct 2020 - May 2021

- Unified GitHub, Trello, and Google Apps in responsive company-wide automation portal with React and Firebase
- Modularized, documented, and updated deprecated code bases to modern development standards using React components
- Wrote problems for the UAE's first national algorithmic codathon, identifying talent and tripling Discord server to 400 members
- Prepared hour-long lectures and coursework for 10 students in a 6-week algorithms bootcamp, provided 1-on-1 guidance

MACHINE LEARNING RESEARCH INTERN

Jul 2020 - Oct 2020

- Selected based on technical ability and leadership potential from top 3% of hundreds of applicants worldwide
- Researched keystroke dynamics (typing patterns) and built React Native app for non-intrusive mobile continuous verification
- Reached 89% classification accuracy with ensemble voting system tuned to sparse data, compared to 68% from baseline KNN models

Leadership Experience

PHS Math Team

Princeton, NJ

CAPTAIN

2016 - 2021

- Curated topics, designed resources, and led team practices for 30 members with a focus on teamwork and engagement
- Qualified and competed in national tournaments (Princeton, Harvard/MIT, CMU, Lehigh), 2nd at USMCA National Finals

PHS Algorithms Club

Princeton, NJ

CAPTAIN

2017 - 2021

- Adapted complex material and taught 15 members algorithmic topics weekly, hosted mock contests and competed nationally

Princeton Soccer Association

Princeton, NJ

CAPTAIN

2011 - 2020

- Dedicated team player and leader, motivated national level team (top 30 NJ) in competitions across east coast

Projects

Ruzzle Solver: Designed first mobile-only Python program to automate a word finding game with OCR, graph theory, and prefix tries

Reddit Username Generator: Trained LSTM/GRU models on 400k usernames for text generation, integrated into React through TF.js

pingmote: Developed hotkey triggered cross-platform global emote picker to create and quickly insert custom images and gifs

CurrChat: Created real-time current events chat rooms with AI-driven moderation, topic categorization, and sentiment analysis

Arduino & RasPi Self-Driving Car: Built obstacle avoiding robot, tuned ROS models in Gazebo sim to speed up maze navigation by 37%

Awards

Math Contests: AIME: 8 (3x qualifier, AMC 12 distinction), CMIMC Combinatorics/CS (5th), PUMaC (Indiv. Finals)

2019 - 2021

Competitive Programming: USACO Gold, Lockheed Martin (1st), Lexington (2nd), Montgomery Blair (2nd)

2017 - 2021

Hackathons: HackPHS 2020 (1st): SMS-based virtual learning, HackPHS 2019 (3rd): Sentiment investing advisor

2019 - 2020

Carnegie Mellon Cybersecurity PicoCTF: Top 50 of 5,000+ teams and 25,000 people

2019

Skills

Languages: Fluent in Python; Familiar with HTML/CSS/JS, TypeScript, Swift, Java, C/C++

Technologies: Firebase, React, React Native, Next.js, Node.js, Flask, TensorFlow, Pandas, Selenium, UIKit, Git, Linux, Latex