

David Chen

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Education

Harvey Mudd College

Claremont, CA

B.S. in Computer Science (GPA: 3.95), Harvey S. Mudd Merit Scholar, Student Mentor, CS 42 Grader/Tutor
Relevant Coursework: Principles & Practice: Computer Science, Single & Multivariable Calculus, Linear Algebra
Intramural & Club sports: Volleyball (Grass, Court, Sand), Badminton, Frisbee, Spikeball, Flag Football

Aug 2021 - May 2025

Princeton High School

Princeton, NJ

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

Sep 2017 - June 2021

Activities: PHS Math Team (Captain), PHS Algorithms Club (Captain), Princeton Soccer Association (Captain)

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

Independent Study

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

Work Experience

Google

Pittsburgh, PA

STEP INTERN - CLOUD AI AND INDUSTRY SOLUTIONS

May 2022 - Aug 2022

- Created a JupyterLab Notebooks extension with React to integrate Vertex AI Pipelines
- Led design and implementation of UI support to create and interact with pipelines, simplifying workflow and minimizing boilerplate
- Maintained UX design and code consistency with existing JupyterLabs extensions, refactoring shared functionality and tests
- Researched potential methods for pipeline visualization, exploring open source alternatives and documenting limitations

COMPUTER SCIENCE SUMMER INSTITUTE

July 2021 - Aug 2021

- Extended and presented 15 daily projects and capstone with JavaScript/Firebase, mentored by Google engineers in advanced track

Scout AI (backed by Y Combinator)

Mountain View, CA

SOFTWARE ENGINEER INTERN

May 2021 - Aug 2021

- Designed and built live restaurant-facing promotion iOS app with Swift/Firebase, created demos for pitch deck
- Set up database to sync with consumer app, emulated and deployed Node.js Cloud Functions for notifications and data cleaning
- Brainstormed and implemented business strategies based on restaurant feedback centered on loyalty and growth

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
- Led teaching and outreach events: taught a 6-week algorithms bootcamp and wrote problems for the UAE's first algorithmic codathon

MACHINE LEARNING RESEARCH INTERN

July 2020 - Oct 2020

- 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

Academic Research

Backgammon - Arthur Benjamin

Claremont, CA

SUNDEMAN RESEARCH ASSISTANT

Mar 2022 - Present

- Developed website for rapid iteration regression testing to create optimal, memorable backgammon strategies based on game state

Microfluidics and Biomaterials Lab - Steven Santana

Claremont, CA

DATA VISUALIZATION AND WEB DEVELOPMENT

Sep 2021 - Present

- Created visualizations for critical reflection on the engineering design process to promote non-linear design and diverse team culture
- Built personalized web dashboard for individual and team self-reflection, automatically integrating plots from Python and R

Activities

Product Space: Product Management Fellowship

Sep 2021 - Present

- Participated in weekly interactive workshops and guest events, learning and developing core product management skills
- Industry Capstone: Analyzed data and designed specialized machine learning methods to recommend candidates to recruiters

P-ai: Project P-Climate

Sep 2021 - Dec 2021

- Reconstructed historical climate information by preparing tree ring data and building recurrent neural networks robust to noise

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

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

Awards

Citadel - The Data Open (West Coast): 1st place paper (\$10,000 prize): NLP-driven Clickbait Detection

2021

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

2019 - 2020

Skills

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

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