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 — *Aug 2021 - May 2025*
Relevant Coursework: Principles & Practice: Computer Science, Single & Multivariable Calculus, Linear Algebra
Intramural & Club sports: Volleyball (Grass, Court, Sand), Badminton, Frisbee, Spikeball, Flag Football

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 JupyterLabs 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

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, iterated on restaurant and user feedback
- Set up database to sync with consumer app, emulated and deployed Node.js Cloud Functions for notifications and data cleaning

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 — *Claremont, CA*
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 — *Claremont, CA*
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: 1st Place - West Coast ($10,000 prize) — *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/JS, Swift, Java, C/C++, SQL
Technologies: React, React Native, Next.js, Firebase, Flask, Node.js, TensorFlow, Pandas, Selenium, Git, Linux, Latex