

University of California, Irvine	September 2024 - December 2025
Master of Data Science	GPA: N/A
University of California, Davis	September 2021 - June 2023
Bachelor of Science, Mathematics	Dean's List, GPA: 4.00/4.00

SKILLS

Python	Java	MATLAB	SQL	MapReduce	WebSocket	HTTP Requests
proficient	comfortable	proficient	beginner	comfortable	comfortable	comfortable
Jupyter Notebooks	PyTorch	Numpy	Pandas	Scikit-learn	LaTeX	Blender
proficient	comfortable	proficient	comfortable	beginner	proficient	proficient

EXPERIENCE

Process Development Engineer Intern—Gradient Orthodontics	May 2022 - Present
Gradient Orthodontics is a start-up that intends to fabricate clear dental aligners that focus on predictable tooth movements as well as comfort for the patient.	
<ul style="list-style-type: none"><li>❖ Algorithm development - developed precise algorithms to convert 3D object inputs into 3D printing instructions, optimizing support for custom dental aligner models with stress reinforcement features.</li><li>❖ App development (interface designs, backend connections) - engineered multiple apps in MATLAB that collect and analyze data from a multi-device laboratory setup using computer vision and image processing.</li></ul>	
Math Club @ UC Davis	Fall 2021 - Spring 2023
<ul style="list-style-type: none"><li>❖ President: Fall 2022 - Spring 2023<ul style="list-style-type: none"><li>• Led and managed a team of 10 club officers to fulfill club objectives throughout the school year</li><li>• Functioned as a key contact between the UC Davis Math Department and its undergraduate students</li></ul></li><li>❖ Event Chair: Fall 2022 - Spring 2023<ul style="list-style-type: none"><li>• Planned and executed 27 club meetings over the school year</li><li>• Worked with graduate students and outside companies to teach undergrads about life after graduation</li><li>• Collaborated with other clubs to set up events to promote both</li></ul></li><li>❖ General Member: Fall 2021 - Spring 2023</li></ul>	
UC Davis Directed Reading Program	Fall 2021, 2022
<ul style="list-style-type: none"><li>❖ Cryptography, Fall 2021<ul style="list-style-type: none"><li>• Studied classical cryptography systems, such as simple ciphers, block ciphers, and Enigma</li><li>• Used number theory concepts to prove simple cryptographical theorems</li></ul></li><li>❖ Geometric Combinatorics, Fall 2022<ul style="list-style-type: none"><li>• Studied convex polytopes, Schlegel diagrams, and different ways to describe polytopes</li><li>• Learned about Alternating Sign Matrices in the context of the ASM polytope</li></ul></li></ul>	

AWARDS AND CERTIFICATIONS

• Yueh-Jing Lin Scholarship	June 2023
• Certificate of Accomplishment in Mathematics	June 2023

NOTABLE COURSEWORK

ENG 006 - Intro to Engineering - Fall 2021
MAT 108 - Optimization - Winter 2022 - Studied optimization of linear programs using the Simplex algorithm and the path-following interior point method. Implemented both algorithms with various pivoting rules in MATLAB.
MAT 180 - Mathematics of Machine Learning - Fall 2022 - In-depth exploration of gradient descent and common ML models such as general and specialized neural networks (CNNs, RNNs), Naive Bayes, Principal Component Analysis. Covered unsupervised models including k-means clustering.
ECS 032B - Data Structures - Winter 2023
DATA 220P - Databases and Data Management - Fall 2024
CS 271P - Artificial Intelligence - Fall 2024 - Covered Search algorithms, Games, CSPs, Logic, Classical Planning, Bayesian Networks, Linear Regression, kNN, Decision Trees, Neural Networks, and Reinforcement Learning