ADRIAN S ROMAN

📞 (650) 656-0807   🏠 675 Alvarado Ave 7, Davis, CA 95616

✉ asroman@ucdavis.edu   adrianSRoman   Adrian Roman   adriansroman ↗

EDUCATION

University of California Davis   2016 - 2021
Bachelor of Science in Computer Science, GPA: 3.638
Bachelor of Science in Applied Mathematics, GPA: 3.361

Stanford University   Jun - Aug 2018
Intensive Studies in Data Science Certificate, GPA: 3.3

RELEVANT COURSEWORK

Stanford University *Graduate-Level Courses*   Jun - Aug 2018
· Statistical Learning: supervised and unsupervised algorithms for predictive and descriptive learning.
· Data Mining: implementation of data mining tools for developing useful and actionable data.

University of California Davis *Upper Division Courses*   2016 - 2021
· Operating Systems: study of operating systems and system programming.
· Data Structures & Algorithms: analysis and design of data structures using C++.
· Recommender Systems: collaborative filtering and content-based selection methods.

EXPERIENCE

Dynamical Systems Intern - Oscilloscape, LLC   Jun 2020 - Sep 2020
· Implemented an algorithm in Python that finds the beat and metre of music in real-time.
· Embedded algorithm in a system of LED lights to display lighting patterns that synchronize to music.

Software Development Intern - Oscilloscape, LLC   Jun 2019 - Feb 2020
· Lead full-stack developer of an innovative iOS mobile app to provide a therapy for language pathologies.
· Designed an AI algorithm to synchronize a metronome with a user's spontaneous tapping rate.
· Used Firebase to record and analyze user's improvement in various therapy tasks.

Curriculum Creator - Computer Science for Kids (CS4K)   Sep 2019 - Present
· Designer of material for teaching kids basic programming concepts, game programming, and debugging.

RESEARCH

Dynamical Model of Interpersonal Synchronization & Endogenous Rhythms   2018 - 2019
· Designed a network of nonlinear oscillators to simulate behavioral data of interpersonal synchronization.
· Wrote AI algorithms in Python to model adaptive synchronization between oscillators.

Search Engine to Determine Relevance of Documents   Aug 2018
· Implemented AI algorithms that return documents from users' search queries in order of relevance.
· Identified and extracted relevant features from a large dataset to enhance the accuracy of algorithms.

PROGRAMMING PROFICIENCIES

C++ C Python Matlab Swift Objective-C Tensorflow UNIX JSON LaTeX

CONFERENCE PRESENTATIONS

Spoken presentation - Society for Music Perception and Cognition (SMPC)   Aug 2019
· **Roman, A. S**., Roman, I. R. (2019). Individual Musician's Spontaneous Performance Rates Affect Interpersonal Synchronization in Joint Musical Performance: A Dynamical Systems Approach.

AWARDS

Undergraduate Travel Award at UC Davis   May 2019
· Funding to travel and present research at SMPC conference held in New York University.