

KEVIN DELAO

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EDUCATION

California State University Los Angeles
- Master of Science in Computer Science (M.S)

Aug 2018 - Dec 2020

University of California Los Angeles
- Bachelor of Science in Biology (B.S)
- Minor in Cognitive Science

Sept 2012 - July 2017

RELEVANT COURSES

- Software Engineering
- Design & Analysis of Algorithms
- Data Science
- Advanced Machine Learning
- Database Systems
- Cellular and Systems Neuroscience

RESEARCH EXPERIENCE

CSULA Thesis Project

Advisor: Navid Amini

Aug 2019 - Dec 2020

Los Angeles, California

- My thesis involved utilizing information theory in conjunction with machine learning to improve the accuracy of detecting hand movements from Surface Electromyography (sEMG) data. Using information theory I created unique orderings of movement sEMG data that is specific per patient in order to optimize classifier performance and improve the accuracy of classifying movements. The purpose of my research was to allow machine learning models to better identify movement commands from the brain.

CSULA Graduate Directed Study

Advisor: Deborah Won

Aug 2019 - May 2020

Los Angeles, California

- The primary goal of this research project was to create a Spring Rest service to be used in conjunction with Amazon Cloud Services to store and retrieve large amounts of movement data from VR headsets and sensors. My project delved into determining efficient methods to transfer large quantities of data to cloud services without too much loss of information.

UCLA W. M. Keck Center for Neurophysics

Advisor: Mayank Mehta

Sept 2016 - July 2018

Los Angeles, California

- My research project was to develop virtual reality environments based in C++ and OpenGL in order to understand how neurons involved in spatial navigation functioned. We attempted to determine how varying VR environments activated different neurons from the brain in order to understand which cells are most involved in navigation.

UCLA Neurovascular Imaging Research Core

Advisor: Fabien Scalzo

Sept 2014 - Aug 2016

Los Angeles, California

- The goal of my research project was to use machine learning to identify blood vessels in brain images from patients that came from Ronald Reagan Medical Center. The focus of my research was to develop a machine learning algorithm based in C++ that could automatically identify tendrils from the brain and then remove any background noise in order to make it easier for medical doctors to identify signs of tumors or blood clots.

INTERNSHIPS

UCLA Bruins-In-Genomics (B.I.G)

Advisor: Nandita Garud

June 2020 - Aug 2020

Los Angeles, California

- My project for the summer research program was to determine the viability of SHAP (SHapley Additive exPlanations) at identifying how genotypes can lead to a specific phenotype. The project focused on utilizing machine learning models based in Python to predict traits using genotypes as features and then interpreting the machine learning models using SHAP. The significance of the project was to conclude if SHAP can be used in real genetic data sets to identify loci that cause deleterious phenotypes.

PUBLICATIONS

- Nezhad, G. S. M., Mohammadzadeh, V., Amini, N., Morales, E., **Delao, K.**, Zhou, B., Caprioli, J. (2020). Comparison of Longitudinal GCIPL Rates of Change between Two OCT Devices. *Investigative Ophthalmology & Visual Science*, 61(7), 3924-3924.

COMPUTER SKILLS

Machine Learning Programming

Python with Keras, TensorFlow, and Pytorch
C++, Python, Java, Javascript, MATLAB, PHP

VOLUNTEERING ACTIVITIES

CSULA Association for Computing Machinery

Student Volunteer

Sept 2019 - Dec 2020

Los Angeles, California

- I volunteered for ACM where I tried to get students from the East Los Angeles area interested in science by hosting workshops where I taught introductory computer science. My goal was that by showing underrepresented students the amazing projects we can make with computer science, then I could get them interested in pursuing a career in STEM.

UCLA Undergraduate Astronomical Society

Student Officer

Sept 2013 - June 2016

Los Angeles, California

- My main responsibilities involved visiting schools in the local areas to demonstrate various demos related to astronomy. We tried to create unique and interesting demos to show students in order to get them interested in science and education.