

EMILIO SORIANO CHAVEZ

Aspiring computer scientist with interest in the application of computational technologies to biological problems. Experienced in data science, computational chemistry, and bioinformatics.

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EDUCATION

08/2018 - Present [Expected Graduation 05/2024]

B.S. Computer Science

B.S. Biotechnology

Minor in Chemistry

Arkansas State University | Jonesboro, AR

GPA: 3.9/4.0

SKILLS

Languages

Spanish (Native) English (Fluent) Italian (Basic)

Computational Skills

Pandas NumPy XGBoost Python R
scikit-learn C++ Qt Git Linux

Computational Chemistry and Bioinformatics

Gaussian SnapGene AutoDock Avogadro

Laboratory Skills

Bacterial Cell Culture Recombinant Protein Production

Multimedia Tools

Adobe Audition Adobe InDesign Adobe Illustrator

TALKS & PRESENTATIONS

April 2023

String in Switch - Usage and Maintainability

Oral Presentation (Co-Presenter)

National Conference on Undergraduate Research
Eau-Claire, WI

August 2022

AI Campus & No-Boundary Thinking - A Grassroots Model for Training the New Generation of Scientists Workshop (Co-Presenter)

ACM Conference on Bioinformatics, Computational Biology, and Health Informatics
Chicago, IL

July 2022

AgAdapt - Multimodal Data Fusion for Maize Phenotype Prediction across Environments
Poster Presentation

Botany 2022, Plants at the Extreme
Anchorage, AK

April 2022

Multimodal Deep Learning for Maize Genomic Prediction
Oral Presentation

NSF EPSCoR Workshop in AI and No-Boundary Thinking
Little Rock, AR

INTERESTS

Cycling Running Video Games Travel
Musical Theater Chess Cooking

WORK EXPERIENCE

05/2023 - Present

Research Assistant

Laboratory of Dr. Donghoon Kim

Arkansas State University | Jonesboro, AR

Developed a malware detection pipeline for Android systems using n-gram analysis of assembly code and decision tree models.

05/2020 - 07/2023

Research Assistant

Laboratory of Dr. Emily Bellis

Arkansas Biosciences Institute | Jonesboro, AR

Implemented a multimodal phenotype prediction approach for *Zea mays* (maize) cultivars using gradient-boosting models and high dimensional data.

05/2022 - 07/2022

Machine Learning Support Intern

Avalo Inc.

Provided support in developing and training machine learning models for plant phenotype prediction.

08/2020 - 12/2020

Chemistry Tutor

Arkansas State University | Querétaro, Mexico

Assisted students in homeworks and test preparation.

05/2020 - 07/2020

Laboratory Assistant

Laboratory of Dr. Asela Wijeratne

Arkansas Biosciences Institute | Jonesboro, AR

Provided assistance in laboratory procedures for identification of regulatory genes in soybean against the pathogen *Phytophthora sojae*.

01/2019 - 12/2019

Teaching Assistant

Arkansas State University | Querétaro, Mexico

Prepared materials for Biology laboratories and provided guidance and feedback to students.