

Francisco Lira

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EDUCATION

University of California, Merced

Bachelor of Science, Computer Science and Engineering

Minor, Applied Mathematical Sciences

Exp. Graduation: Dec. 2022

Cumulative GPA: 3.31

Relevant Coursework: Java, C/C++, Data Structures, Algorithms, Discrete Mathematics, Circuit Theory, Computer Org. & Assembly Lang, Renewable Energy Facts & Applications, Digital Image Processing, Human-Computer Interaction, Object-Oriented Programming.

ACCOMPLISHMENTS

Dean's Honors List – Achieved by having a GPA of 3.0+

Peninsula College Fund Scholarship – Four-year scholarship for first-generation college students.

Dream.US Scholarship – Four-year full-tuition scholarship awarded for academic excellence and Dreamers.

DesignMerced Award 2020 – A UI and UX competition on designing an App Interface using Figma.

Innovate 2 Grow Project Winner – UC Merced Competition in which our Web App, Connecting Communities, won 1st place

TECHNICAL SKILLS

C language • Java • C ++ • Swift (Basic Knowledge) • GIT • Python (Basic Knowledge) • Terminal Commands • Simulink • Bilingual • MATLAB • Leadership • HTML • CSS • JavaScript • SWIFT

ENGINEERING EXPERIENCE AND PROJECTS

Bay Area Rapid Transit, San Jose, CA

Aug. 2021–Dec. 2021

Programmer, Operations Control Center Shift Log WorkBench

Tools Utilized: Visual Studio Code, HTML, CSS, JavaScript, Python, SQLite, Flask, Github

- A team of 4 developed a web application in which BART OCC Managers (User) are able to improve the process of inputting, categorizing, condensing, extracting, and reporting traffic control information.
- The app has different functionalities that allow the user to input shift logs detailing maintenance work, police activity, delays, equipment abnormalities, and other events impacting the regular operation of the system.

Pervasive Autonomous Networked Systems Lab, UC Merced

June 2021–Aug. 2021

Undergraduate Research Assistant

Project Title: “Vibration-based Indoor Occupant Gait Monitoring with Robot Vacuum Cleaners”

Funding Source: Summer Undergraduate Research Fellowship (SURF) @ UC Merced

- Supervised by Shijia Pan, Ph.D.
- Constructed a vibration-based gait monitoring system on the mobile platform of an in-home vacuum cleaner and collected data using structural vibration-based methods.
- Created a visualization platform/website using HTML, CSS, and JavaScript which displayed the ongoing data in real-time and helped users and research fellows understand the project.

Inclusive Interaction Lab, UC Merced

May 2022–Present

Undergraduate Research Assistant

Project Title: “Braille Keyboard: A Keyboard for Sighted, Low Vision, and Blind Mobile Users”

Tools Utilized: Android Studio, Java, XML

- Supervised by Ahmed Sabbir Arif, Ph.D., and Gulnar Rakhmetulla, Ph.D.
- Proposed and Constructed a braille keyboard design that will allow Blind mobile users to interact with mobile devices in a faster and more efficient way.
- Tested Keyboard with 10 users and collected data.

ORGANIZATIONS AND LEADERSHIP

HackMerced Media & Marketing Officer

Apr. 2021–Present

- Create UI/UX designs using Figma for the event and website. Created marketing strategies to advertise the HackMerced Event for Spring 2022. Contacted 5 other Hackathons for marketing and 5 universities for marketing.

Association for Computing Machinery at UC Merced (ACM)

Sept. 2019–Present

- Attend workshops that helped sharpen my coding skills. Created 2 projects throughout the semester, my personal website, and a roommate compatibility program.

Society of Hispanic Professional Engineers (SHPE) Internal Rep. Chair

Apr. 2020–May 2021

- Assisted the President and Vice President in internal affairs. Communicated to the chapter any changes to school policies and was in charge of all social media and the image of the organization. social media presence increased from 450 to 530 during my time of service.

Google's Hispanic Student Leadership Community Summit

2019

- Participated in The Hispanic Student Leadership Community Summit at Google. 100 students were selected to attend this event in Northern California. The summit brings Latinx leaders together to share innovative/creative best practices with one another.