Erick Higareda

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WORK EXPERIENCE

LEARFIELD | LED Field Technician

Sep 2021 – Present | Berkeley, CA

- Developed easy-to-use macros which allowed for our team to screen batches onto the LED board interfaces more efficiently.
- Worked technically with other teams to run nationally televised events at venues in a smooth and professional manner.
- Contributed maintenance and repairs to LED boards at stadiums and sports venues, sometimes during live events.
- Worked with a team to completely replace and revamp signage systems and LED displays at the California Memorial Stadium

VOLUNTEER EXPERIENCE

Academic Mentor

Sep 2019 – Aug 2020 | Whittier, CA

- Served as a mentor and tutor for high school students taking chemistry and mathematics courses to assist them academically
- Planned and participated in one on one as well as group tutoring sessions with students outside of class hours requiring coordination and collaboration with other mentors and mentees.

PROJECTS & ACTIVITIES

Gitlet

Nov 2021 – Dec 2021 | Berkeley, CA

- Implemented a version-control system from scratch using Java mimicking the basic features of the popular system Git, requiring a deep understanding of how version control systems operate, creating design documents describing an implementations strategy, and file serialization.
- Uses include being able to save the contents of entire directories of files while tracking the history of the files to be able to restore prior versions.

Jump

Oct 2021 | Berkeley, CA

- Created a two-person strategy board game using Java that allowed a user to play against a computer, against another person, and allowed the computer to play itself.
- Implemented an AI program in the game that would reliably find a win from any position in which a win for the AI a certain number of rounds away by using a recursive minimax algorithm.

Project SIXT33N

Jan 2022 – May 2022| Berkeley, CA

- Built a voice-controlled robot car and its circuitry from scratch that would listen to voice commands using an electret microphone and move accordingly based on the word spoken.
- Processed data using Python taken from the moving robot using singular value decomposition and principal component analysis for the Arduino that the robot used to be able to use it allowing for the voice-control mechanism to function properly.

EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY

B.S. ELECTRICAL ENGINEERING & COMPUTER SCIENCE

Expected June 2024 | Berkeley, California

WHITTIER HIGH SCHOOL

Sep 2016 – Aug 2020

COURSEWORK

- CS61B – Data Structures
- CS61A – Structure and Interpretation of Computer Programs
- CS 70 – Discrete Mathematics and Probability Theory
- CS 61C – Machine Structures
- CS 170 – Efficient Algorithms and Intractable Problems
- CS 198-99 – Introduction to Full Stack Development
- EECS16A/B – Designing Information Devices and Systems I/II
- Math 53 – Multivariable Calculus

Skills & Languages

- Full stack development
- Data structures
- Web Development
- Python
- Java
- HTML, CSS
- JavaScript
- C
- Node.js
- Scheme
- RISC-V
- Spanish