ALBERTO **RAMIREZ**

Chicago, IL · 773-217-6318 · **aramir88@uic.edu**· **LinkedIn:** www.linkedin.com/in/alberto-ramirez-aa2b13187

EDUCATION

University of Illinois at Chicago **May 2023**
Bachelor of Science in Computer Science
Software Engineering Concentration

Relevant Coursework: Program Design I, Program Design II, Mathematical Foundations of Computing, Programming Practicum, Data Structures, Machine Organization, Languages and Automata, Computer Design, Software Design, Database Systems

SKILLS

Coding: C++**,** Java (1 yr.), Python (1 yr.), SQL, C#, JavaScript
Coursera by Google: The Bits and Bytes of Computer Networking, Technical Support Fundamentals
Software: Arduino IDE, Processing, Android Studio, Unity
Languages: Spanish (Seal of Biliteracy), Mandarin (Novice)

WORK STUDY

UIC School of Theatre and Music, Technical Assistant **October 2019 – Present**

- Assist with set up of sound system and record video and/or audio for concerts and rehearsals.
- Help students and teachers by answering questions, providing equipment, set up tech, or troubleshoot technical issues.
- Collaborate with co-workers and supervisor remotely to help staff and students.

PROJECTS

Interactive Database GUI (Group Project) **Summer 2022**

- Created a database schema including 5 tables in MySQL Workbench to use along with a Java built GUI
- Assisted partner with designing GUI's elements and relationship to the database schema's tuples using Java swing
- Wrote SQL queries to insert, delete, and update items in the database to interact with in the GUI
- Designed the schema diagram and tables to demonstrate the relationship between our tuples and what elements belong respectively

Home Monitoring System (Arduino Group Project) **August - December 2021**

- Worked in a group of 4 using 4 Arduino boards with 6 input devices and 4 means out output.
- Suggested ideas to allow our devices to perform smart home features without making expensive home changes.
- Used open-source code for our I/Os and edited code to add features required for each of our device's purpose.

File Compression Program **November 2021**

- Used Huffman encoding algorithm to encode and decode .txt files to allow file compression and decompression.
- Edited HashMap started code to able to implement a frequency map that used chaining to handle collisions.
- Made a function to encode the frequency map using a Huffman node struct and a priority queue to organize values.
- Built an encoding map by recursively searching through a Huffman tree to give binary values to .txt file's characters.

LEADERSHIP

Outreach (SHPE), Chicago, IL **August 2020 – June 2021**
Co-Chair

- Created online content with co-chairs targeted to help students in STEM field.
- Lead creation of website with team to have a platform to share STEM/Academics content
- Organized SHPE UIC's first virtual 5k with co-chairs and raised ≈ $300 to donate to schools in need of supplies.

Noche de Ciencias (SHPE), Chicago, IL **November 2019**

- Helped set up stations of LED/Servo Activities
- Taught young attendees how to control laser attached to servo motors through Arduino IDE.
- Explained how Arduino transfers power and outputs information to motors using pins and breadboard.