# ROGELIO AGUILAR

# **EDUCATION**

#### University of California - Merced

Aug. 2016 - May 2021

Bachelors of Science Computer Science and Engineering

# **WORK EXPERIENCE**

#### **ISSNAF**, Backend Developer, Remote

Jan. 2021 - May 2021

- Worked with a volunteer company to develop their front-end database application.
- The application would make it easier for their members to manage and view their database.
- Used MySQL to create queries that selected specific data, and inserted/updated new values into tables according to the users inputs.
- Used Node.js and Express.js to route the specified queries into the front-end application.

# **PROJECTS**

#### Sudoku Solver

- This Sudoku solver uses a backtracking algorithm to find a solution for any solvable sudoku board.
- With the backtracking algorithm for each empty box, it will try all numbers, find a number that works, repeats for each empty box, and backtracks to check if all numbers will work with every row and column.
- Users can choose to solve the sudoku board by themselves or press space, to see the backtracking algorithm complete the board.
- Used Python to create the backtracking algorithm and Pygame's Gui interface to display the board.

#### **UEFA Champions League Statistics**

- Imported statistics from Kaggle into a local SQLite database.
- Created Tables for the statistics and made connections between tables with an Entity-relationship model.
- Created queries to output the statistics according to user inputs.
- Used Java SDK to combine the user inputs in java with the SQLite database and queries.
- The project consisted of Java and SQLite.

### **Chat Application**

- The Chat App is a real-time chat application, that enables the user to sign in with their credentials, via Google or Facebook.
- Once signed in, users can create chats, view past messages, and message other people with the help of ChatEngine.io.
- The user is able to sign in, via Google or Facebook, by using firebase's authentication system.
- Once the user is signed in, the data is stored, then sent to ChatEngine.io using react-router-dom.
- React.js allows the user to see the chat application's front end.

## Recipe App

- The Recipe App allows the user to favorite random recipes, search for specific recipes, and view their favorite recipes.
- This application uses TheMealDB API to fetch random recipes, lists of recipes, and ingredients.
- Used HTML and CSS to create the front-end design.
- Used vanilla Javascript to route TheMealDB API functions and create the functionality of the user interface.

## SKILLS

TECHNICAL SKILLS: Java, JavaScript, MySQL, Node.js, React, Visual Studio Code, HTML, CSS, SQLite, C++, C, MATLAB

# **AWARDS**

#### Innovate to Grow - Spring 2021 UC Merced

May 2021

- Team won the data track for Innovate to Grow at UC Merced.
- Competed against other teams from our Software Engineering course that worked on database applications.