

LoL Matchmaking

Author: Austin Yono

Date: September 9, 2021

Version: V 0.1

1 Context and Goals

League of Legends is a team oriented strategy game. The goal of the game is to take down the opponent team's nexus which is located in the center of their base, across from where you spawn. The game sounds very simple, but it is a lot more complex than first anticipated. There are over 156 different champions to select from in the game, all of which can play different roles; middle lane, top lane, jungler, attack damage carry (ADC), or support. There are also champions that can play multiple roles, just not in the same match. League of Legends becomes more complex when you get into selecting different runes before the match starts, what items to buy while in game, and also which champions are considered S tier at the time. There are some champions that pair well with one another and at times, this can cause for better team fights, which can win that team the game. This is where one of LoL Matchmaking's features comes into play. During your champion select screen, our overlay will provide users information to which champions are considered S tier, as well as which champions they pair well with. Over the years, League of Legends has been known to have more of a rude community, where players don't treat one another nicely. LoL Matchmaking here will provide a chance for users to match up with another player of the same ranking and playstyle, to become familiar with other users and help the community become friendlier. Many players have issues with who they get matched in games with, so here is a solution for someone who wants to be matched with a friendly person.

Term	Definition
Base	<i>Where a champion can go to heal and purchase items that make them stronger.</i>
Champion	<i>The character that a player controls in a match. Each different champion has a unique set of abilities from other champions.</i>
Champion Select	<i>The screen right before the game begins and a set of champions are selected by the enemy and the users' team.</i>
Role (top, middle, ADC, support, jungle)	<i>The position a user contributes to playing.</i>
Nexus	<i>Sits in front of each team's spawn. If a player's nexus is destroyed, their team has lost the game.</i>
Rank	<i>A system where players are placed into based on how they play. It includes nine tiers, where through each game won, a player gains League Point (LP) and can progress to a higher rank.</i>

Playstyle	<i>This describes the manner of how someone plays the game. In League of Legends, that could be to climb in the ranked system or to have fun.</i>
------------------	---

2 Statement of Work

We will contribute to fulfilling these goals by using the Overwolf API and the Riot API. This will allow us to fetch data from the database and with different algorithms, display the information to the user to assist them in the ways listed above. This is whether they want to match with a player or just check what champions are S tier and who they synergize well with. In order to do this, we will work with Overwolf, who is an open platform for 3rd-party Creators in PC Gaming (Apps and Mods). Currently, a Dev-Rel Manager, Jason Lee, provides resources and feedback to ensure the app is successfully launched.

3 Technical Solution

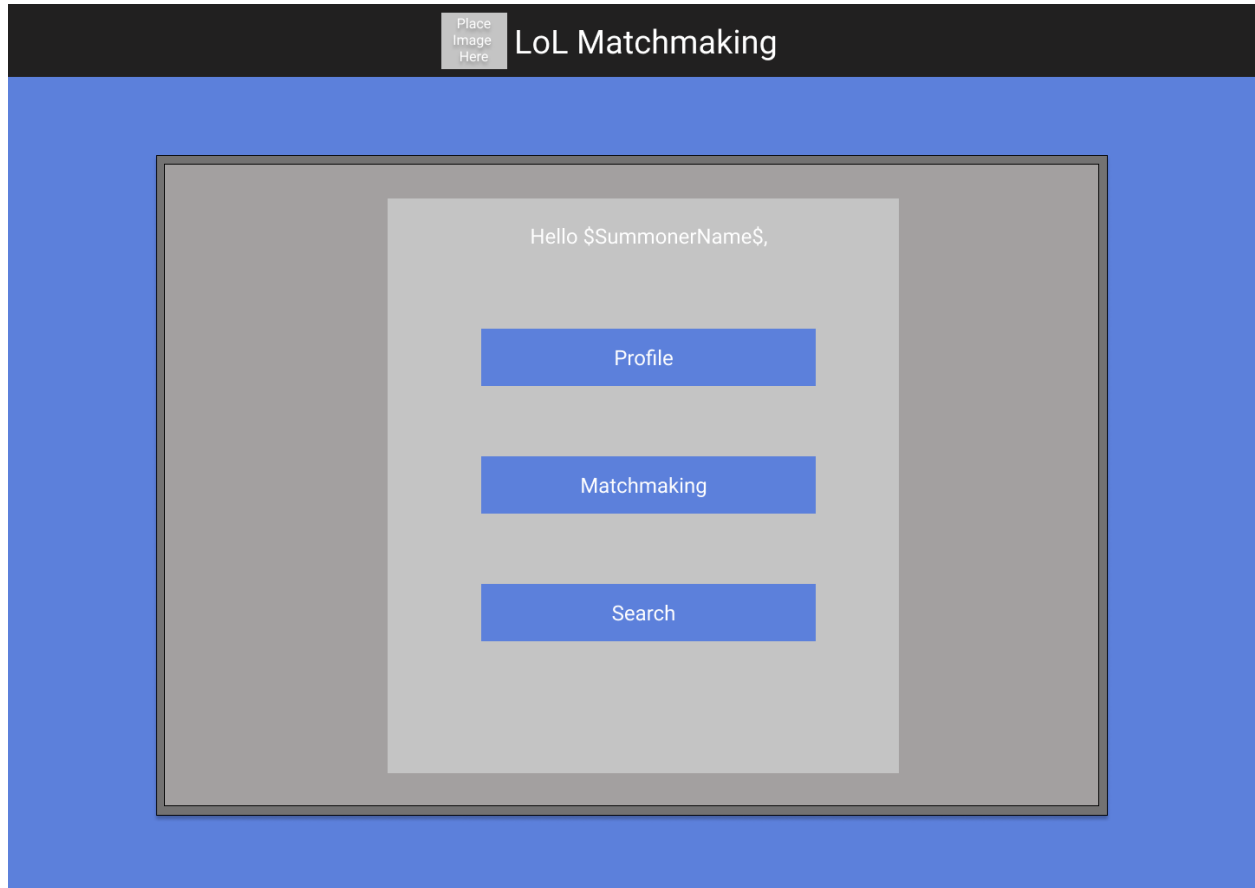
We plan to create this application using Visual Studio Code, Cloud Firestore, Cloud Functions for Firebase, and programmed using React JS and Node JS. While using the above components, we will also be fetching data from the API's to retrieve the needed information.

Term	Definition
------	------------

Cloud Firestore	<i>The local database that will be used to store player information for LoL Matchmaking</i>
Firebase Functions	<i>Functions that are given by Google Firebase to allow backend code to run in response to events triggered by Firebase features and requests</i>
Node.js	<i>An open-source development platform for executing server-side Javascript code</i>
React.js	<i>An open-source, front-end, Javascript library for building user interfaces (UI) or UI components</i>

4 Project Work Examples

Desktop Overlay



Champion Select Overlay

