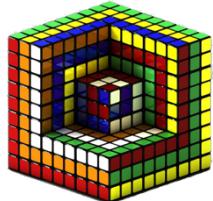


Caden Jiang

<http://github.com/jiangshen>

Mobile Applications Development, Game Development, Finance Algorithms (So far...)



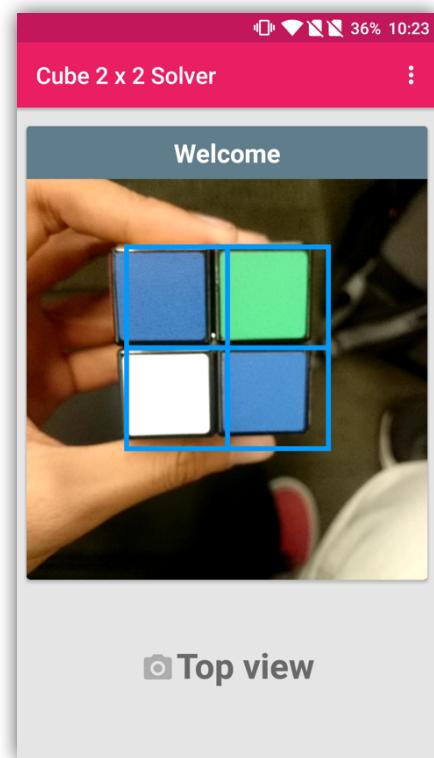
Cube 2 x 2 Solver

Grand Prize Winner

Oct • Georgia Tech Appathon 2015

Simple app to let user take photos of the faces of a 2 by 2 Rubik's Cube and generate the required steps to solve it.

This is my first time developing an Android app, I created the front-end interface, then used code to acquire the images of the Rubik's cube. I also generated my own color detection algorithm to translate the images into the corresponding set of colors representing each face of the Rubik's cube. It was a very fun and fulfilling experience coding the entire app in less than 12 hours. I worked with 2 other teammates over the project.

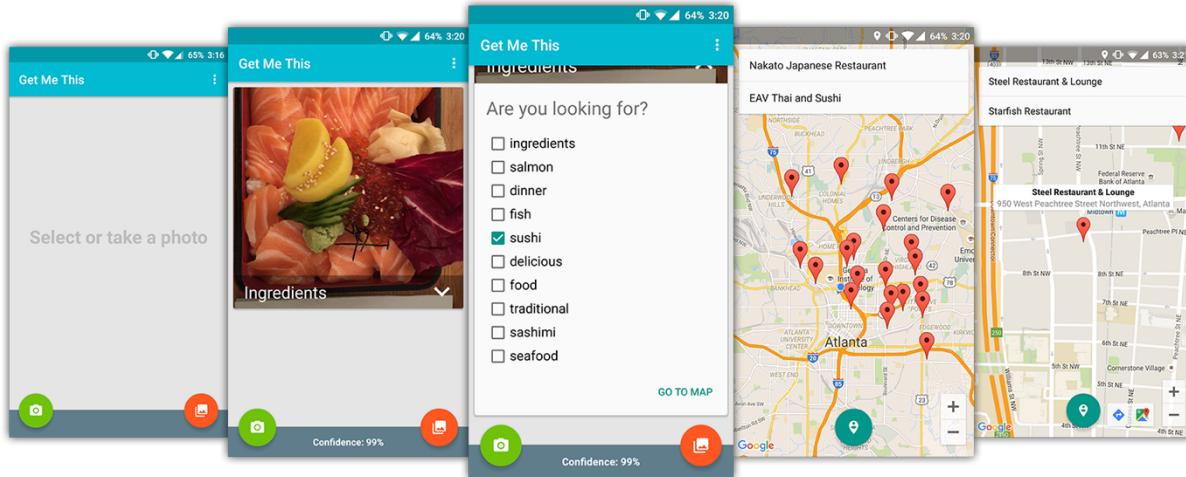




Get Me This

Oct • UGAHacks 2015

Android app that recognizes the things you don't and tells you where to get it.



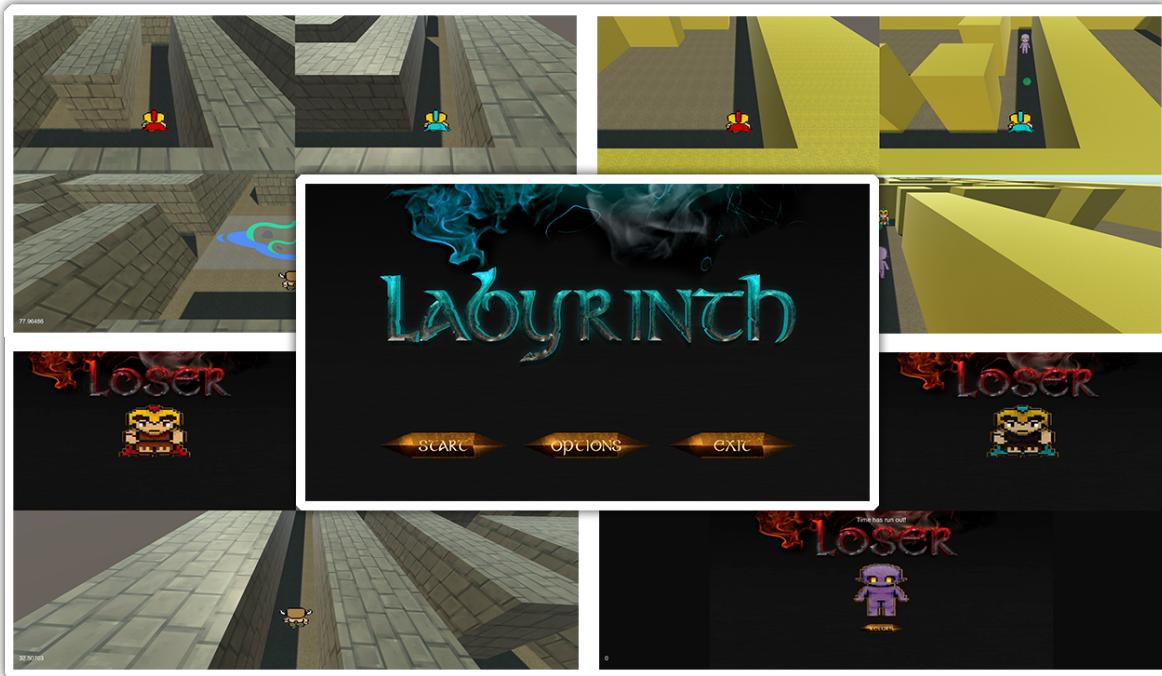
This app comes in handy when you travel to a foreign country and want to get something but don't know how to call it. Simply by taking a photo of this app will identify it and direct you to nearby shops to get it. I designed and made the front-end, as well as using Clarifai API to recognize the images, then connect the query to Google Maps to discover places. This app was made with 3 other teammates and finished within 36 hours.

Labyrinth

Top 10 Finalist

Jan • SwampHacks 2016

A simple yet addictive game created from a rare blend of Photoshop, Unity and brains.



A probing venture into Unity turned into a viable idea for a 2.5 dimensional 3-player maze survival game at SwampHacks, I started off with designing most of the game's visuals, including all the menus, the player sprite image and the texture maps for the actual maze. With the completion of the basic game world, I laid the schematics of the actual maze onto each game mode. Using Unity, I linked the different menu controls to the actual game, merging everything into the final product – a highly addictive adventure where players control either a monster or a human fighting each other before time runs out. This project was created with 4 other team members in 36 hours.



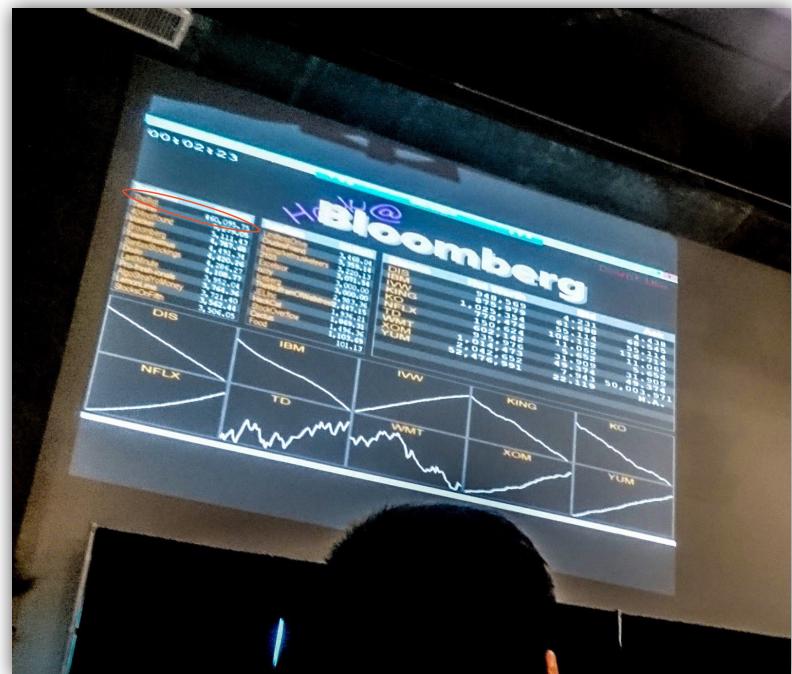
TheBot

First Prize

Feb • CodeB with Bloomberg @ Georgia Tech 2016

Stock trading algorithm with the best returns

This is my first venture into finance, the goal was to create an algorithm to earn the highest amount of money in a simulated stock market environment. Our team took a different approach from the rest from the start. From the practice sessions we realized that the best way to grow our portfolio for this competition is to rely on earnings from dividends. We calculated the P/E ratios as well as taking cues from the volume of trades for particular stocks and manage to get a formula to determine the most lucrative stock to buy at any one time. Throughout the practice sessions we also realized that some stock tends to rise in value consistently, thus buying them at the end makes for an attractive strategy. During the actual competition of 20 min stock simulation, we simply waited for 15 min, until the value of a particular stock gets huge, then we finally get in the game, buying all at one shot and getting the best dividends. The teams who started trading at the 0th minute had all ran out of money to buy any more stocks, as their returns trickle down and their portfolio growth stagnated. Through this strategy we are able to stay ahead of the competition by a big margin and eventually win the hackathon. It has been a very fun learning experience, both trying to reason stock trading and handling java and python web requests to interface with the actual trading platform.





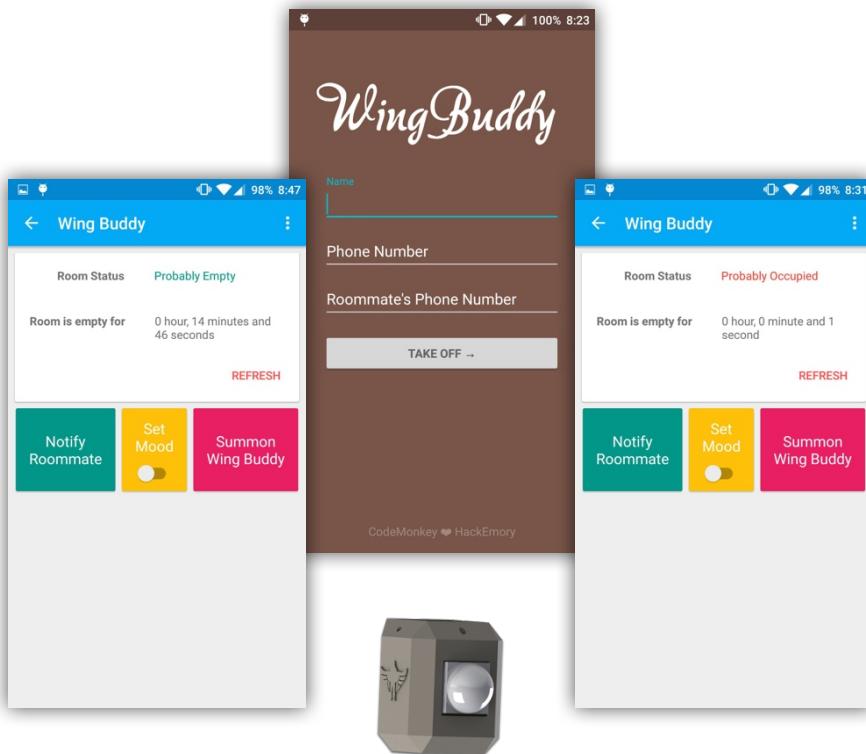
Wing Buddy

First Prize

April • HackEmory 2016

No more awkward moments.

It is late at night; you are at a party. Everything is perfect: the people, music and the atmosphere. You dance and flow through the crowd. Eventually, you meet someone special and show her your best moves. She likes you and joins you. You guys have lots of fun and decide to go back to your place. But there is a problem, you are a college student, which means that you are living with a roommate – going to back to your place seemed like a great idea until you remember that you never know whether your room is available or not, your roommate is quite unpredictable. Thanks to WingBuddy we come to your rescue.



WingBuddy is a platform that is spread across multiple devices, ranging from microprocessors with IoT cores to mobile devices. We have a sensor that detects motion in the room, which communicates with the app and tells you whether your room is empty or not. The app can notify your roommate instantly with a press of a single button of your special guest, setting the mood right by playing some music through connected Bluetooth speakers, and also summon your WingBuddy, if you need help with anything, collecting points as you help others and be a good WingBuddy.

I focused on creating the front end app interface to make it elegant and easy to use. I also interfaced the app to communicate with Firebase server as well as linking it with the motion sensor through network. This project was made possible with 2 other teammates in 12 hours.