UGA. HACKS⁵ WITH pwc

FEB 7 – 9, 2020   HACKATHON RECAP

ZELL B. MILLER LEARNING CENTER

VENUE

The entire fourth floor dedicated to UGAHacks 5 this year.

FEB 7 – 9, 2020

DATES

UGA HACKS 5

OVERVIEW NUMBERS

927
APPLICATIONS
Applications opened on Nov 30, 2019 and closed on Jan 28, 2020.

542
ATTENDEES
Number of hackers who checked in.

70
PROJECTS
Number of group projects submitted on devpost.
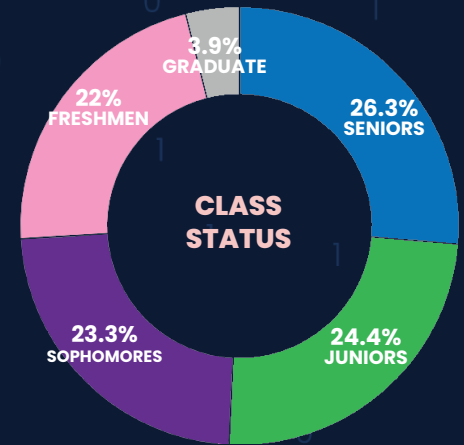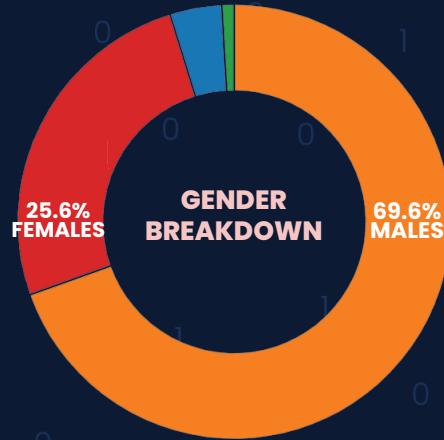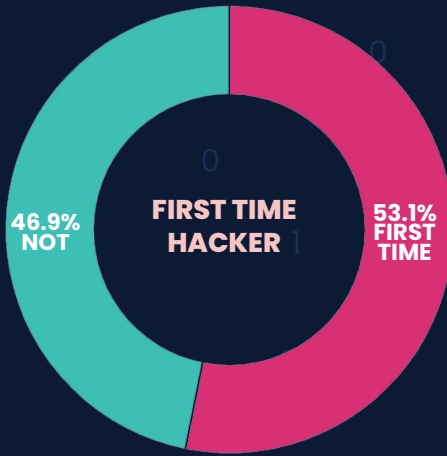
26
VOLUNTEERS
Ten were mentors.

23
ORGANIZERS
Six were directors.

45
SPONSORS
We had 15 total company sponsors.

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ABOUT THE ATTENDEES

FIRST TIME HACKER
- 46.9% NOT
- 53.1% FIRST TIME

GENDER BREAKDOWN
- 25.6% FEMALES
- 69.6% MALES
- 3.9% Preferred not to answer
- 0.9% Non-binary

CLASS STATUS
- 3.9% GRADUATE
- 22% FRESHMEN
- 26.3% SENIORS
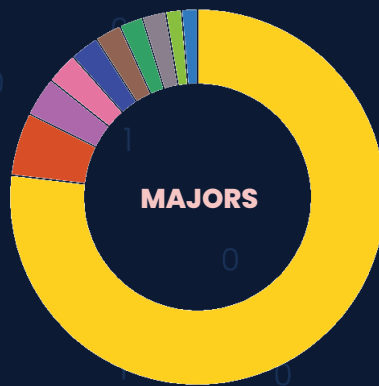- 23.3% SOPHOMORES
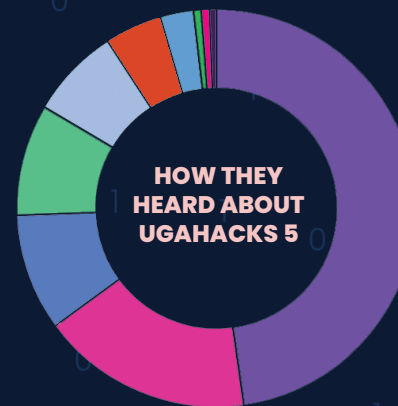- 24.4% JUNIORS

SCHOOLS IN ATTENDANCE
Augusta University, Blue Ridge Community College, Clayton State University, Clemson University, Devry University, Georgia Gwinnett College, Georgia Institute of Technology, Georgia State University, Gwinnett Technical College, Kennesaw State University, Mercer University, Porter-Gaud School, The University of Georgia, The University of North Carolina at Charlotte, The University of TN, University of Illinois Springfield, University of North Georgia

TOP HARDWARE REQUESTS
Raspberry Pi
Arduinos
VR

MAJORS
- 76.9% Computer Science
- 5.4% Computer Engineering

Under 4%:
Management Information Systems
Electrical Engineering
Information Systems
Information Technology
Mechanical Engineering
Software Engineering

HOW THEY HEARD ABOUT UGAHACKS 5
- 47.8% Friends
- 17.2% Professors / University
- 9.5% N/A
- 9.1% Search Engine
- 4.6% Promotional Emails
- 2.7% Facebook
- Less than 1%: Twitter, Github, Instagram

BLACKROCK API

WINNER

Genie [DEVPOST](#)

Andrew Zhao, Stephanie Yang, Jakub Jackowiak

Genie allows users to set short and long term goals, ranging anywhere from a night out with friends to the down payment on your first apartment. The app connects this goal with investment and tracks how the gains from these investments have contributed towards your goal. By showing the connection between accomplishment and investment, we encourage students to enter the world of investing as well as prompting them to plan for their future.

RUNNER UPS

Invez [DEVPOST](#)

Armaan Lala, Michael Rehman, Joshua Biswas
Investing is an extremely good financial option that everyone in this day and age should be utilizing. The problem with this is that it can be a very daunting task to get into. Our company, invEZ takes the stressful parts out of investing and helps to curate a tailored list of possible stocks specifically for the user.

Jasmine [DEVPOST](#)

Samuel Yuen, Manu Puduvalli, William Vega, Yi Jian Ma
Jasmine is made to help you get into investing while making sure you avoid the noise. Don't be baited by the news about "popular" stocks/companies or potentially huge gains from betting on a company. Instead, Jasmine has two API endpoints which access BlackRock's Aladdin, which in turn, returns financial information that Jasmine uses to show users the advantages of diversification.

PWC CTF CHALLENGE

FIRST PLACE

GREYHAT

SECOND PLACE

DANGLING POINTERS

THIRD PLACE

SORRYDEVS

HACKS⁵

SUB-CATEGORY: ART

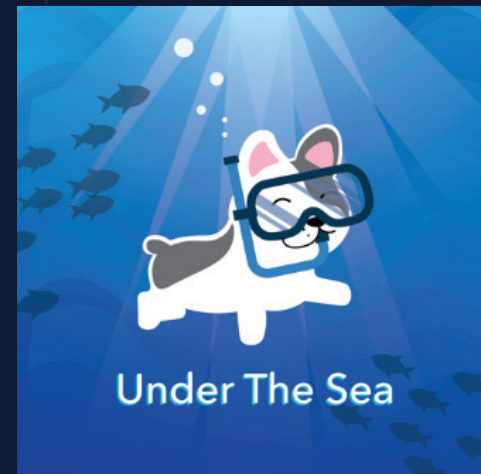**WINNER**

STEPHANIE YANG

RUNNER UP

STEPHANIE HE

BEST SOLO HACK
MEAL [DEVPOST]

Jack Towery

MEAL has two core functionalities: (1) to allow users to search for summer lunch sites and get directions to them, and (2) to allow users to browse the registry of Georgia farmers markets to find local sources of healthy food.
(1) is accomplished by letting users search for summer lunch sites by zip code. There are over 3500 sites in Georgia, so narrowing down this list to a specific area is important so that users are not overwhelmed by the list. Users can scroll through and tap on results to learn more about the summer lunch site, including days and times of operation, address & directions, and contact information for the site manager. Tapping the "Directions" button opens the address of the site in Google Maps for navigation.
(2) is accomplished by letting users browse the registry of farmers markets in Georgia. The list view displays the approximate distance from the user's current location to the market, and if the market accepts SNAP. Users can tap on each site to learn more about its hours and selection of goods & wares and get access to its website and social media profiles.

BEST BEGINNER HACK
BURNT OUT [DEVPOST]

Nick Kreitz, Yaoviav, Proxence

Burntout is a website designed to help you if you are feeling overwhelmed by any kind of stress. On our main sight, you'll see 4 planets: Cute Planet, Satisfying Planet, Funny Planet, and Dash-Cam Planet. When clicked, each planet redirects you to a page where you can view randomly sourced GIFs in the theme of the planet. There is an embedded stream of lo-fi music to calm your ears as you lose yourself in GIFs of cute kittens. If you haven't had enough, you can click on the "new gif" button to show you a new GIF.

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BEST VIDEO GAME

GOINGDARK [DEVPOST](#)

Nikhil Chittaluru, Fuad Youssef, Jason Park, Keun Park

Going Dark is a web-based mobile multiplayer game designed to allow groups of friends to play against each other in team-based capture-the-flag. The game uses gyroscope and accelerometer data as well as screen-touch events from the user's phone to control the character. The game runs on any phone that has a chrome browser so users do not have to download a new app.

Once a group joins the lobby, the game splits the members into two teams. Each member is given an electronic key (a flag) to hide on their side of the field. Once the match starts, teams try and find and retrieve the enemy team's flags. Both collecting the enemy's flags and standing on the enemy side will score points. The team that reaches the point threshold first wins the game.

However, players can get caught by the opposing team if they are on the enemy side which will result in a point deduction and their capture. To escape, one of their teammates needs to meet them at the jail section of the map.

3RD PLACE BEST OVERALL

PROJECT SUNFLOWER [DEVPOST](#)

Michael Marra, Daniel Ling, Corey Xing, Preston Lee

Project Sunflower is a proof of concept for a tracking solar panel device equipped with various other sensors connected to a MongoDB database for analysis in order to determine.

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2ND PLACE BEST OVERALL

WAND [DEVPOST]

Danny Tang, 6cho, Aladdin Al-Khatib

Virtual walking stick to improve navigation for the blind. WAND is a device that is able to detect and identify objects that may pose a risk to a blind person walking. The WAND has a camera for imaging input. The images are then run through OpenCV for object detection which returns a word representation of the objects in the image. The word of the center most object is then put through a text-to-speech conversion which outputs audio to the blind person using it. The ultrasonic sensor is able to tell the distance of the object, so the combined output to the user would be something like, "Chair 5ft". WAND is also an acronym that stands for Walking Aid Notification Device.

1ST PLACE BEST OVERALL

VRM [DEVPOST]

Jawad Iqbal, Kevin Koffroth, Emily Nieves, Hunter, Jake Alford

VRM is a teleoperated robot arm coupled with an intuitive virtual reality user interface. Our novel VR user interface consolidates visualization of sensor readouts and control over the robot arm.
Robotic manipulators are incredibly common, used in applications from surgery to bomb disposal to space exploration. With the increasing popularity and applicability of virtual reality we aimed to combine these technologies and leverage their strengths.
We have created a user interface that allows for intuitive control over a robot arm such that the user can easily give position commands to the robot arm and the robot arm will execute commands in real life. The user interface also includes a data visualization module that visualizes sensor readouts from various sensors such as a moisture sensor and temperature sensor. The sensor readout also includes camera feed with which we leverage computer vision for analysis of the environment, being able to detect distances to objects as well as do object recognition. The control and data analysis are consolidated into one cohesive user interface.

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StateFarm

UNIVERSITY OF GEORGIA   Department of Computer Science
Student Government Association
Resident Hall Association

MLH   ACM at UGA   Ruby Sue GRAPHICS   stickermule
MAJOR LEAGUE HACKING

Photo album can be found at bit.ly/2OIGliJ

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