# SOFTWARE ENGINEERING-CTW XLS Group GX

Summer 2020 Tuesday & Thursday (Online)

**Group Name: InvincibleFive** 

Team Members:
Shili Guan [Team Coordinator]
Ann T. Hoang
Bharath Venkata Malapati
Kahrin B. Huggins
Lauren James

**Task 1 – Team Capabilities Description (5p)** 

Name	Education	Computer Skill	Experience
Shili Guan [Coordinator]	Senior, Computer Science	Languages: Java, C++	None
		Tools: Raspberry Pi	
Ann T. Hoang	Senior, Managerial Science and Mathematics, Computer Science Minor	Languages: Java, Python, SQL  Tools: Unity, Android Studio, APIs	Internships: GSU Digital Learners to Leaders Team/Tech Lead  Personal: Fall 2019 GSU Hackathon
Bharath Venkata Malapati	Master's degree in computer science	Languages: Python, MATLAB, C, C++ (Learning), and Verilog.  Tools: Anaconda, Mentor Graphics for DFT, Xilinx Vivado, Proteus.	Projects: Designed and developed front end fornmore than four websites, online fare calculator for distance transported using HTML, Jquery, Javascript, Bootstrap, Angular JS  Research: M. Bharath, K. V. Reddy and R. Dey, "Implementation of IoT Architectur e for Intruder Alert System using MQTT Protocol and MEAN Stack,"
Kahrin B. Huggins	Senior, Computer Science	Languages: Java, HTML/CSS, JavaScript, Node JS, Python, PHP, SQL, C  Tools: Microsoft Office Suite, Android Studio, Godot Game Engine	Projects: Glib (Fall 2019) - Intro to Game Design Project  Airline Checkout Site (Summer 2019)  – Web Programming Project

			Personal: Pomodoro Timer App (Fall 2019)
Lauren James	Senior, Computer Science	Languages: Java, JavaScript, CSS, HTML, SQL, C, Python	Projects: HackGT 4: New Heights at Georgia Institute of Technology State Farm Hack Day at State Farm Atlanta Hub

Task2 - Planning and Scheduling (6p)

Assignee Name	Email	Task	Dur atio n (hrs)	Depe nden cy	Due Date	Note
Shili Guan [Coordinato r]	sguan2 @student.gsu.e du	Task 0,1,2,3,7 and 8, video meeting on Discord to complete video record Posting on GitHub Upload Video to YouTube	6-9 hrs		06/19 /2020	Finish all tasks and organize the report make sure every task is complete d before submittin g.
Ann T. Hoang	ahoang7 @student.gsu.e du	Task 4 and 8, video meeting on Discord to complete video record	3 hrs	None	06/18 /2020	All tasks must be finished and send to me by 06/18/202 0 Excellent: (100%)
Bharath Venkata Malapati	vmalapati l @student.gsu.e du	Task 6(b & c) and 8, video meeting on Discord to complete video record  Managing team's Github account	4 hrs	None	06/18 /2020	All tasks must be finished and send to me by 06/18/202 0 Excellent: (100%)
Kahrin B. Huggins	khuggins4 @student.gsu.e du	Task 5 and 8, video meeting on Discord to complete video record	3 hrs	None	06/18 /2020	All tasks must be finished and send to me by 06/18/202 0 Excellent: (100%)

Lauren James	ljames26 @student.gsu.e du	Task 6(a) and 8, video meeting on Discord to complete video record	2 hrs	None	06/18 /2020	All tasks must be finished and send to me by 06/18/202 0 Excellent: (100%)
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## Task 4 - Team Work Basics – (10p)

Summarize the following sections in the Teamwork Basics documents using your own words and must provide examples using personal experience (at least two group members) in this class or other classes or internships

#### **Ground Rules:**

**Work Norms:** It is wise to establish work expectations before even beginning. We need to decide the project work flow, such as deliverables, deadlines, and distributions; it would be helpful to have a distinguished team coordinator. We also need to incorporate a review system for tasks in order to ensure work quality. It is important to agree on appropriate methods to address conflict within the group.

*Experience*: "When I did a consultant co-op with Munich RE, my team and I had to create a document detailing mutual expectations, deliverables, and deadlines. We forwarded the document to Munich RE and waited for their approval before we officially began the project. This helped ensure that the team and the client was on the same page." -Ann Hoang

**Facilitator Norms:** Establish a system to assign a project facilitator. We need them to guide the team throughout the project timeline. This requires motivating teammates to focus on the tasks and complete them by the deadline. The facilitator should be able to effectively summarize the team's work as well.

Experience: "I had to take leadership for a project in the past, where I experienced the importance of sending out reminders for deadlines and periodically checking in with the team members to ask about whether they are stuck on any part of the process. I noticed the issue and guided them to the resources that would help them reach a solution. Overall, the facilitating role really helped keep the project moving forward." -Ann Hoang

**Communication Norms:** The team needs to decide on communication expectations, such as how frequent should they be used. Make sure everyone has access to the platforms and try to work with their preferences.

*Experience*: "There was no real set of guidelines established during my team project in game development. As a result, we faced many obstacles and couldn't pace ourselves since no one was held accountable for their actions or lack of action. We were able to finish in the end with an improvised plan." - Kahrin Huggins

## Hints for Handling Difficult Behavior:

For **overly talkative** individuals, who may either by eager, overconfident, well-informed, or not receptive, use humor to disperse their domination over the discussion. Use this opportunity to address another member to speak. The other option is to meet with the individual privately and kindly ask them to also give other members a chance to speak.

Experience: "I have been exposed to talkative but enthusiastic members in a few group projects. A lot of the times, simply recognizing their idea would be enough to move on with the discussion and give the next member a chance to speak." -Ann Hoang

For **overly quiet** individuals, who may be shy, tired, bored, insecure, or uninvolved, verbally check in on them throughout the meeting, and remind them their participation is appreciated.

Experience: "I once worked with someone who was noticeably shy. After the other team members had an opportunity to speak, I would look over and ask what the she thought about the idea. She seemed to be more at ease when her response turned into more of a conversation." -Ann Hoang

For **argument-prone** individuals, who are often critical of ideas or other members, consider their different perspective as them playing devil's advocate, while also being direct that being overly critical on teammates could damage team morale towards the goal.

Experience: "My team was split in two - those who worked on front-end development and those who worked on back-end. There was one individual on the back-end team who would try to take control of all the processes and decision-making. He would continuously shut down others' ideas. Eventually, the entire team decided to communicate their frustrations to him and convince him they're all trying to do well on the project too." -Lauren James

For **complaining** individuals, who may be easily annoyed or just likes to complain, listen to their complains, and ask them for suggestions on how we should progress as a team. Help them work through their whatever they may be unhappy about.

*Experience*: "Expressing empathy worked out the best for me in this situation. I recognized their feelings of discontent and described the rewards the project will bring, which will be more than worth it once completed." -Ann Hoang

## Hints for Handling Group Problems:

**Floundering** is when groups are stuck in a limbo phase, which often happens in the beginning of a project when everyone is getting to know each other. It would be helpful to make an immediate list of tasks as well as an agreement on a future plan if possible.

Experience: "Halfway through my game development project, my task partner completely disappeared. My team and I wasn't sure how to respond, so we were stuck in a limbo for quite some time. However, we decided to evenly split her work among the other team members in the end. We should have prepared for an emergency scenario like this sooner to prevent further project delays." -Kahrin Huggins

Going off on digressions and tangents is when discussions between team members stray off the main topic. Off topic conversations are good in moderation when it comes to building relationships, but it is very important to direct the conversation back to the project to progress.

Experience: "During an internship, my team and I occasionally engaged in random conversations, but we still made sure to finish the goals we had set for the day before going home." -Lauren James

**Making a decision too quickly** is when a team member may be more action-oriented and rushes the team to make a decision and move onto the next step. To counter this

behavior, another member can chip in and check on the general consensus about the idea of progressing forward.

Experience: "I experienced this with my team during a competition. Two out of five members were very action-oriented. They were fixated on this one idea and kept trying to move forward to the next steps. My other team members suggested we should take a step back and carefully evaluate the current work and consider the client's perspective." -Ann Hoang

**Not making a decision** is when a team is unable to reach a consensus. "Plan A" is a good solution for quick decisions, the idea with the most points is chosen. The latter, multivoting, involves narrowing down the choices by vote, dissecting the pros and cons of the top choices, then voting for the final idea.

Experience: "My team and I had disagreements when it came to choosing an idea in the beginning. We kept going back and forth until we decided to go with a voting system after discussing each idea in detail. Everyone thought that was fair, so we were able to reach a consensus." -Kahrin Huggins

**Feuding between group members** is when tension arises between team members due to personal or professional matters. These conflicts need to be resolved immediately by having the parties involved engage in active listening while communicating to one another.

Experience: "In one of my group projects, two team members did not get along very well due to their different personalities. They would easily get annoyed at each other, which led to an awkward atmosphere. I pulled them aside and tried to be a mediator to their conversation. Both obviously cared about the project; they just let their frustration get the better of them. When the two members came to understand the other side, team meetings became much more productive." -Ann Hoang

**Ignoring or ridiculing others** is when those, who are not considered a part of a "subgroup," are excluded or ridiculed. However, it's a valuable skill to be able to set differences aside and work with a variety of personalities.

*Experience*: "While working for a gaming production company, I was excluded from a subgroup due to declining a few invitations to social activities with the team. I should have tried to go despite my desire to stay home because it was necessary for the purpose of team bonding." -Ann Hoang

The group member who does not do his/her share of the work is when a team member may be uncooperative, slacking, or absent. This person should be made aware of how their lack of action is affecting the entire group.

*Experience*: "This scenario happened multiple times for me, but it is normally because some people need more outreach than others. If I know how they operate ahead of time, I should consider a constant reminder schedule in order to get their work sooner than others. Sometimes they may be absent due to personal problems at home. In this situation, I would meet with them individually to see if we can work something out." -Ann Hoang

## **Task 5 - Problem Statement – (10p)**

Problem Statement "User Requirements": (Overall Project Description)

## **User requirements:**

Methods used for generation of user requirements includes surviving/questioning friends, literature Review, available resources or applications in market and Brainstorming.

## **Description:**

Food waste management/Excess Food Management is one of the serious problems among the restaurant's around the world, Feeding the Hunger is another major problem. Where numerous government organizations and charities are fighting to feed the hunger. A software system/application that could solve two problems at one hand. By bringing together Restaurants and Charities around the world, solving the main problems Hunger and Food Waste Management. The software application is an online application (if time persists it can be converted into multiple platform app), Where Each Restaurant using it can see the charities/government organizations/ NGO's available nearby and their meal count requirements posted by the Organization. There Restaurants can choose an Organizations based on the food/meal count that it can provide (meeting the requirements of charities meal count). An automated optimization algorithm can be implemented that connects Restaurants to the organizations. Once a Restaurant confirm the request for donation the food/meals need to deliver by either the restaurant or a volunteer nearby can pick-up and delivery it to charities. We will incorporate location services so that the food isn't traveling too far away from its origin, thus preventing food from spoiling on the way to its destination. Programs that are similar to ours includes Goodr and Food Rescue US which also allow businesses with an excess of food to connect with nearby charities so that there is a cut down in food waste. What differentiates ours is that we would encourage volunteers to transport the food as well as allowing charities to provide the amount of food necessary so that again, there is no surplus. Also, there could be a component that will allow charities to communicate with one another so that if one charity knows about a surplus of food coming in, they can share amongst other companies who haven't met their food maximum. Essentially, it will have a similar format to a typical social media platform allowing several kinds of businesses to connect with each other.

## **User Requirements from four Perspectives:**

**Restaurants Requirements:** Need to send the excess amount of food to near charities based on the requirements posted by charities (Meal Count).

**Charity Organization Requirements:** It should be able to post the meal count and try to accumulate the Food from the restaurants that are nearby.

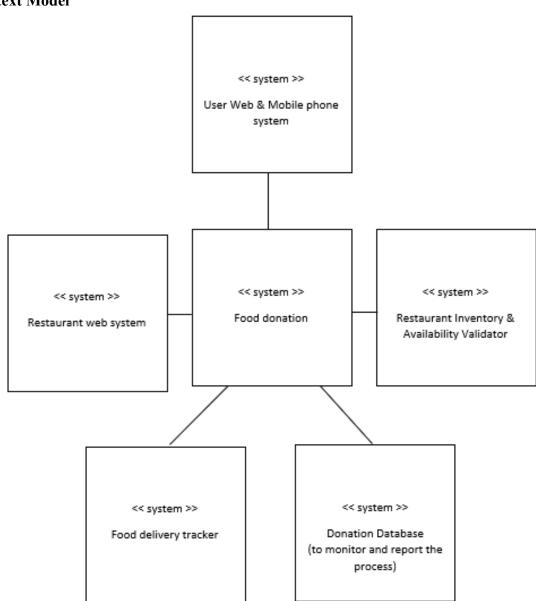
**Volunteers Requirements:** They should receive a Notification for Pick-up of food from nearby restaurants and Deliver it to the charities.

**Admin Requirements**: Evaluate the charities, Restaurants and volunteers Profiles and Give their access liabilities into the software system usage.

## Task 6 - System Requirements - (38p)

(a) -10p Describe at a <u>very high level the system's architecture</u>, identifying the components/modules that will interact.

## **Context Model**



(b) – 15p Identify system functional and system non-functional requirements (from software developer prospective). Use Use-Case diagram when identifying system functional requirements

## **Functional Requirements:**

User-Authentication System (Restaurants, charities and volunteers): If they an account and already registered user for this application. The user shall be login by authenticating with his/her credentials like Gmail/username and password. If the user is new, he/she shall be able to register to the system by providing all the necessary information. And their account will be activated after reviewing the provided information by admins. Based on the review result, Notification mail will be sent to the user weather their account is activated or not. Once the accounts are activated the user able to login and use the system.

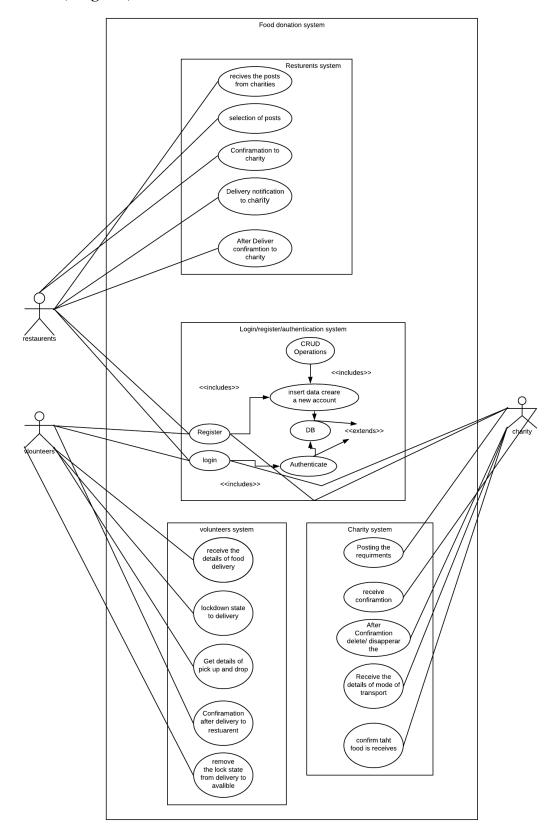
Each of the three actors' views after login need to have different views and different functions.

**Restaurants:** Need to view the post's for food requirement from charities if there are No post it should as a zero or no posts. If There are certain number of posts then they can be able to select the charity they want to send or provide the food. Once they selected a confirmation need to send to the selected charity and the post posted by charity need to remove from the list of posts by charities. If the restaurant opts use the third-party delivery service than a notification request needs to be passed to near by volunteers who are free. If not, Restaurant need to deliver by its own transport to the location (that need to be provided by the system)

**Charities:** They shall have capability to post the Food requirements and receive the information of Food delivery and by which mode it has been delivering.

**Volunteers:** Need to receive notification of food delivery and they need to accept the delivery option. They also need to know the information of pick-up and delivery locations and the amount or quantity of Food they need to delivery. And update the state the state of volunteer to delivering such he/she unable to receive requests from restaurants until their status changes.

## **USE-CASE** (Diagram):



(c) -13p detailed requirement specifications for every use case that capture what the behavior of the final system should be.

## **Requirement Specifications:**

Summary: Login using Credentials into software application

Actors: Restaurants, Charities and volunteers

#### **Basic Course of Events:**

- 1. Actors access the home page with login button (need to be clicked)
- 2.Enter the credentials like username/email and password
- 3. Validate user credentials and give access to the user view or service provided by the system for that actor

**Alternative Paths:** If step 3 fails (validation is false) then return to step 2 ask for re-login with valid credentials.

Pre-condition: User need to have a valid registered account

**Post-condition:** User will have access to their respective systems.

**Summary:** Registration for the software application/service

**Actors:** Restaurants, Charities and volunteers

#### **Basic Course of Events:**

- 1. Choose the category of Actor
- 2.Input requested details like documents etc.
- 3. Wait for the confirmation mail regarding activation of account

**Alternative Paths:** If step 3 fails (validation is false) then return to step 1 ask for re-login with valid credentials.

**Pre-conditions:** User must be new and do not have an existing account **Post-Condition:** User can login into his system based on the credentials.

**Summary:** Login as Restaurant user and choosing the charity in nearby area for food donation.

**Actors:** Restaurants **Basic Course of Events:** 

- 1.Enter the restaurants view/application where different posts from charities about their food requirements are visible.
- 2. Choose a charity post that matches to the restaurant by scrolling down.
- 3. Confirm food delivery by clicking on the post and get the in details of the post
- 4. After confirmation of food delivery a notification need to be send to charity.
- 5.If its delivered by volunteer than after accepting the delivery by voluntary the notification need to be send to charity with volunteer details.
- 6. when the delivery is done by restaurant a notification about it send to organization.
- 7. After Delivery again a Confirmation notification need to send to restaurants as well as charity
- 8. Logout if user done with the jobs.

**Alternative Paths: No** 

**Pre-conditions:** User must be successfully logged in with credentials

**Post-Condition:** Food will be delivered to charities in some time. Along with notifications

for intermediate steps 4,5 and 6.

**Summary:** Login as Charity user and Posting the Food requirements to nearby restaurants and receiving food.

**Actors:** Restaurants **Basic Course of Events:** 

- 1. Enter the Charity requirements and post it, The Post is visible to nearby restaurants.
- 2.Get Confirmation Notification once a Restaurants ready to deliver the food.
- 3. Get the details regarding the mode of transport (by volunteer or restaurant)
- 4. Delete the Post From the which of restaurants pool, once its accepted by restaurants
- 5.If it delivered by volunteer than after accepting the delivery by voluntary the notification needs to be sent to charity with volunteer details.
- 6. For the state of no confirmation from restaurant to deliver the food
- 7. Logout if user done with the jobs.

**Alternative Paths:** No

**Pre-conditions:** User must be successfully logged in with credentials

Post-Condition: Food will be received to charities after some time. Along with notifications

for intermediate steps 2 and 3.

**Summary:** Login as Volunteer for picking up the food from restaurants and deliver it to the nearby charities.

Actors: Volunteers

## **Basic Course of Events:**

- 1. Receives the Notification for pick-up and delivery.
- 2.Once Accepts the notification for food delivery lock his state as in delivery.
- 3. Other notification related to pick-up will not be received until an item is delivered.
- 4.Once Volunteers task is completed; Notification need to send to Restaurants.

Alternative Paths: Declined in step-2 return to step-1

**Pre-conditions:** User must be logged in, the charity should have posted the add and also a confirmation/acceptance from the restaurant for providing food.

**Post-Condition:** Food will be received to charities after some time. Along with notifications for intermediate steps 2 and 3.

### **Non-Functional Requirements:**

**Performance:** The system is available all days at active timings. Remaining timings can be used as maintenance of the system.

**Security:** Since the system deals with data related to Charities and Restaurants, the protection of it need to be done at a good scale.

**Permissions/Approvals:** Approvals from the governments (Food Inception Department) to run the service. And the system shall be patent provision and requires Copyrights, Ethical clearances.

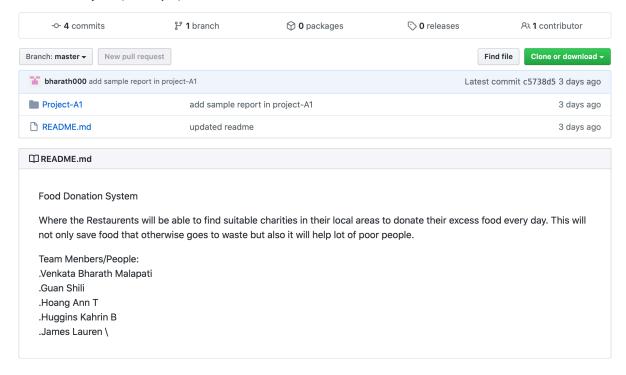
**Organizational:** Setting up the volunteers based on the charity or NGO's they belong to

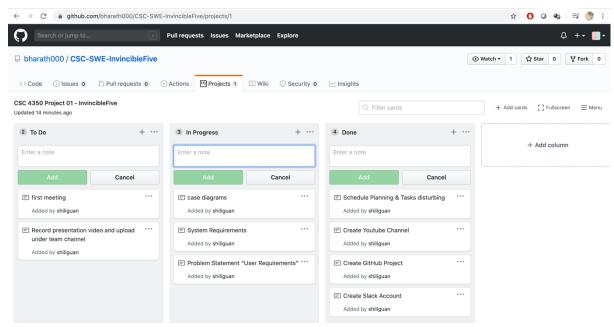
## **Appendix**

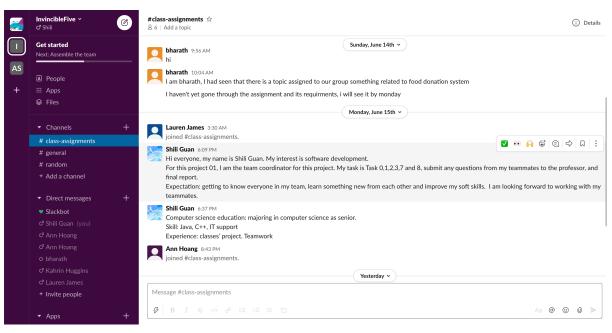
GitHub: <a href="https://github.com/bharath000/CSC-SWE-InvincibleFive">https://github.com/bharath000/CSC-SWE-InvincibleFive</a> Slack: <a href="https://invinciblefive.slack.com/archives/C0162K4J940">https://invinciblefive.slack.com/archives/C0162K4J940</a>

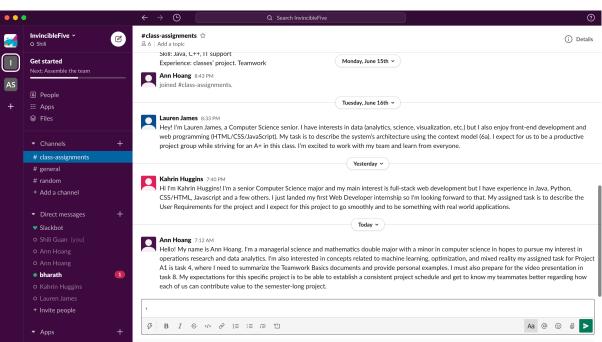
Youtube Channel: https://youtu.be/ZNI2U0bkNSU

Food Donation System (SWE Project)









#### **Resumes:**

## Shili Guan

Atlanta, GA | 30093 | (678) 622-4850 | shilig25@gmail.com |

LinkedIn: https://www.linkedin.com/in/shili-guan-85ab4814a

GitHub: https://github.com/shiliguan

#### **EDUCATION**

## Georgia State University, College of Arts & Sciences

Atlanta, GA

Bachelor of Science in Computer Science - Excepted Graduation

May 2021

Relevant completed course:

- Data Structures

- Math Models for Computer Science

- Computer Org & Programming

- System Level Programming

Principles of Computer Sciences IPrinciples of Computer Sciences II

Diamete Methametica

- Discrete Mathematics

- Calculus of One Variable II

#### **SKILLS**

Programming:

- Proficient in Java

- Basic knowledge of C, Linux System and

Assembly Language

Language:

- Fluent in Mandarin and Cantonese

## WORK EXPERIENCE

Sarku Japan Atlanta, GA

Staff

February 2014 – October 2019

- Handling any unexpected situations and providing a quick and high satisfaction solution.
- Assisting manager and team-working with other team members to achieve each daily goal.

## Abercrombie & Fitch Atlanta, GA

Sales Associate

February 2015 – December 2017

- Greeted customers, and quickly determent each's needs.
- Provided highly satisfaction customer experience.
- Teamed up with other colleagues to drive sales in order go above and beyond daily goal.

Accomplishment: MVP of the store at Lenox Square.

July 2016

## INVOLVEMENT & AWARDS

Cybersecurity Club @ GSU – Active Member President of China Club I Am STEM program – Member March 2020 – Present January 2017 – January 2018 January 2016 – January 2018

## Ann Hoang

620 Paper Creek Dr., Lawrenceville, GA 30046 • (678) 507-9009 • ahoang7@student.gsu.edu • in/ahoang1011

#### **EDUCATION**

#### Georgia State University

Atlanta, GA Spring 2021

Bachelor of Business Administration and Bachelor of Science | GPA: 3.0

Major: Management Science | Major: Mathematics, Concentration: Statistics | Minor: Computer Science

- Girls Who Code, Active Member
- Institute of Industrial and Systems Engineers, Active Member
- Actuarial Students Association, Vice President/2 semesters
- Model United Nations, selected Secretary-General/Honorable Delegation

#### Korea University

Seoul, Korea

Study Abroad Summary: Studied managerial accounting, microeconomics, small businesses and their influences on the economy.

Relevant Courses: Real Analysis, Applied Statistics, Business Analysis, Business Intelligence, Data Structures, Design and Analysis of Algorithms, Mathematical Statistics, Numerical Analysis, Operations Management, Optimization, Software Engineering

#### COURSE EXPERIENCE & CAMPUS INVOLVEMENT

#### Senior Seminar Course – Student Research Georgia State University

January—April 2020

Georgia State University

- · Learned the process of developing a research question and a math model to study changing variables and their relationship.
- · Applied the process to studying a paper about "Social Balance and the Bernoulli Equation" to better understand modeling.
- · Developed a research question to determining the optimal queuing diagram for autonomous public transportation vehicles.

#### Digital Learners to Leaders - Team/Tech Lead Georgia State University

August—December 2019

Georgia State University

- · Work with a team of students across degrees on unstructured projects with limited supervision to develop tangible solutions.
- · Create an android app on Unity using Google API's to develop a virtual environment with augmented project-based learning.
- Simulate various analyses through excel data tools to evaluate projected costs and profits related to product growth timeline.

Participant April 2019
ASA DataFest Emory University

- Analyzed raw data sets over two days through implementing the data mining methodology, CRISP-DM, with a diverse team.
- · Performed data cleaning in R and developed a new model that weighed subjective data with objective data for reliable info.
- · Translated the analysis into charts using Tableau for ease of interpretation and provided recommendations for the business.

#### WORK EXPERIENCE

Associate Event Coordinator

June 2017—December 2018

—December 2018 Alpharetta, GA

- Skillshot Media (game service studio wholly owned by Hi-Rez Studios)
- Led a cross-functional team who executed 12 tournaments and a world championship budgeted at \$4MM under six months.
   Utilized line and Quip to englyze issues expedite project timelines, and measure performances for operational improvements.
- Utilized Jira and Quip to analyze issues, expedite project timelines, and measure performances for operational improvements.
   Contributed to workload planning and forecasting related to inventory logistics, which allowed for simultaneous shipments.

#### Consultant Co-Op

January 2017—May 2017

Munich American Reassurance Company

Atlanta, GA

- Identified a strategy to attract the untapped millennial and lower-income market by scoping solutions for outdated practices.
- · Collected meaningful insights on current buying trends for insurance by conducting surveys and analyzing statistical models.
- · Presented innovative practices to our client' executives, their partners, and industry professionals in large-scale conferences.

## TECHNICAL COMPETENCIES

### SKILLS/HOBBIES/INTERESTS

- Microsoft Office: Access, Excel, PPT, Word
- Project Management: Concur, Jira, Knack, Quip, Slack
- Data: SQL, C#, Java, Python, Tableau, VBA
- Skills: Data analysis, Development, Research, Teamwork
- Hobbies: Gaming, Learning, Martial Arts, Music
  Interests: Operations Research, Optimization, Sustainability

Languages – English: native. Vietnamese: conversational. Korean: basic.

## **Lauren Taylor James**

Atlanta, GA, 30303

Mobile: 706-834-8218 | LTJames.james@gmail.com | https://github.com/lalalaurenville

#### Education

Georgia State University | Honors College | College of Arts & Sciences

Atlanta, Georgia

B.S. in Computer Science

Anticipated Graduation Date: Spring 2021

Relevant Courses:

Institutional GPA: 4.03

Data Structures, Mobile App Development, Data Mining, System-Level Programming,

President's List

Fundamentals of Website Development, Computer Organization & Programming

Programming Languages: Java, JavaScript, CSS, HTML, SQL, C, Python

#### Experience

#### State Farm: Data Analyst Intern in Dunwoody, Georgia

May 2019-Present

Responsible for creating and modifying Data Visualizations leveraging Qlikview and Qliksense tools for reporting and dashboarding solutions that help various State Farm business areas manage risk around IT Assets and other data on the Metrics Data Aggregation & Analytics team in the IT Risk & Compliance area

Research Assistant for Georgia State University's Computer Science Department August 2018-May 2019 Working on a graduate research group as an undergraduate through the Honors College to study machine learning and knowledge-based systems (specifically DeepDive, Fonduer, and YAGO) using SQL while concentrating on dark data extraction, storage, and analysis mentored by Dr. Yubao Wu

#### State Farm: Software Developer Intern in Dunwoody, Georgia

May 2018-May 2019

Internship working with State Farm's Enterprise Technology Claims System Development Operation (DevOps) and Test Automation team to research, develop, and test code for various projects in Java, Python, and Visual Basic for Applications (VBA) code using agile and behavior-driven development

### Google's Computer Science Summer Institute (CSSI) in Cambridge, Massachusetts

Intensive three-week long, hands-on computer science program instructed by Google Engineers on HTML, CSS, JavaScript, Python, and Google AppEngine that culminated in building a web-based application in a team

- <u>Team Project:</u> "What's the Move?" an application that allows students to find budget-friendly and convenient places to dine, shop, and play in the city (whats-themove.appspot.com)
- Individual Contribution: develop, design, and deploy layouts for five web pages (homepage, fashion
  page, and fashion subpages) before embedding information from research on local clothing stores

#### GenCyber Summer Academy at Augusta University

July 2016

Academy concentrated on cybersecurity instruction that involved hands-on activities while using Python code to defend and attack programmable robots using the latest technology in a university setting

#### Projects/Hackathons

HackGT 4: New Heights at Georgia Institute of Technology

October 2017

- <u>Team Project:</u> created a personalized job application that utilized an unobtrusive chatbot to discover preference and proficiency of applicants to determine the best match for a position prior to the interview
- <u>Individual Contribution</u>: primarily responsible for all front-end aspects of application utilizing JavaScript (React.js, Node.js), CSS, and HTML to develop, test, and optimize layouts

#### State Farm Hack Day at State Farm Atlanta Hub

June 2018

- <u>Team Project:</u> "InstaQuote" an additional feature for the State Farm PocketAgent mobile app that uses a VIN scanner to quickly generate personalized insurance premiums for multiple vehicles
- <u>Individual Contribution:</u> responsible for creating the prototype for mobile application's front-end display and user experience design using Adobe XD and serving as the presenter for the project's demonstration

## Leadership Experience

1 1	
Generation Google Scholar	March 2019-Present
NCR Scholars	July 2018-Present
Undergraduate STEM Research Society (USRS) Webmaster	Apr. 2018-Present
Google's Program Community	Oct. 2017-Present
Girls++ (Count the Girls) Vice-President, Membership Chair	Oct. 2017-Present
National Society of Black Engineers (NSBE) Secretary, Public Relations Officer	Aug. 2011-Present

## KAHRIN HUGGINS

<u>kahrinhuggins@gmail.com</u> | (770) 696-3704 | <u>www.linkedin.com/in/kahrinhuggins</u> | 2744 Westport Lane, Conyers, GA, 30094

#### **PROFILE**

I am confident that my skills and my passion for technology are a perfect match for this position. I would bring to your company a broad range of skills, including a background in various computer languages, biliteracy, stellar interpersonal communication skills and sharp problem-solving ability.

#### **KEY SKILLS AND CHARACTERISTICS**

Java

- · Microsoft Office Suite
- · Korean Language

· HTML/CSS

· Android Studio

JavaScript

· Godot Game Engine

· Unity Game Engine

Node JSPython

· Adobe Photoshop

·PHP

· Adobe Premiere Pro

 $\cdot$  SQL

· C

## **PROJECTS**

Glib (Fall 2019) - Intro to Game Design Project

- Created the User Interface for game in GDScript, the native Godot game engine script.
- · Worked with a team to complete game by semester deadline
- · Lead moderator while presenting materials and game design progress

Pomodoro Timer App (Fall 2019) - Personal Project

- · Created in Android Studio, using Java, to use the Pomodoro Technique
- · Created graphics for app in Adobe Photoshop

Airline Checkout Site (Summer 2019) – Web Programming Project

- · Created form validator for user info via PHP
- Coded main site page and credit card checkout using HTML/CSS and JavaScript
- · Used Adobe Photoshop to create graphics for site

#### **EXPERIENCE**

## Tier 1 Production Support Technician, PlayOn! Sports, Atlanta, GA 08/2018 - Present

- · Troubleshooting issues with streaming software and automated cameras
- · Helping test new software and site features
- · Liaison between internal staff, event producers and partnered company staff

## Support Desk Agent, Brandt Information Service, Dunwoody, GA 10/2016 – 09/2018

- · Earned and maintained 96% customer satisfaction rating
- · Address customer service inquiries in a timely and accurate manner
- Give accurate and appropriate information to explain procedures, troubleshoot issues, and resolve complaints

## Retail Associate, Rainbows Shops, Conyers, GA 06/2016 – 08/2016

- Performed daily department tasks including pricing markdowns, inventory control, and processing transactions.
- · Organized merchandise displays
- · Processed new shipment into store

#### **EDUCATION**

Georgia State University, Atlanta, Georgia

May 2020: Bachelor of Science in Computer Science

Heritage High School, Conyers, GA

May 2014: High School Diploma

## MALAPATI VENKATA BHARATH

Email: malapati.bharath.15ece@bml.edu.in, malapativenkatabharath@gmail.com Linked In: https://www.linkedin.com/in/malapati-venkata-bharath-788a05131/

Git: https://github.com/bharath000

### SUMMARY OF QUALIFICATION

BML Munjal University, Gurugram, Haryana, India.

(Aug 2015 - May 2019)

Bachelor of Technology in Electronics and Communication Engineering, CGPA: 8.45/10

**Courses:** Information Theory and Coding, Introduction to Statistical Learning, Digital Signal Processing, Computer Architecture and Organization, Computer Programming in C.

Sri Chaitanya Collge, Vijayawada, Andhra, India.

(June 2013 - May 2015)

Senior Secondary, Percentage: 95.4

Dr.KKR's Gowtham International School, Vijayawada, India.

(June 2009 - April2013)

Secondary Schooling, GPA: 9.7/10

#### RESEARCH PUBLICATIONS

M. Bharath, K. V. Reddy and R. Dey, "Implementation of IoT Architecture for Intruder Alert System using MQTT Protocol and MEAN Stack," 2018 4th International Conference on Computing Communication and Automation (ICCCA).

Link: <a href="https://ieeexplore.ieee.org/document/8777526">https://ieeexplore.ieee.org/document/8777526</a>

K. V. Reddy, M. V. Bharath, A. K. Suhag and M. Sinha, "Test Vector Reordering by using Hybrid Genetic Algorithm-Simulated Annealing for Lower Switching Activity," 2018 4th International Conference on Computing Communication and Automation (ICCCA).

Link: <a href="https://ieeexplore.ieee.org/document/8777638">https://ieeexplore.ieee.org/document/8777638</a>

#### WORK EXPERIENCE:

• Deep Learning Research Intern at Endimension Technology, IIT Bombay, Mumbai, India.

(Jan 2019 - June 2019)

- As a Deep Learning Researcher, worked on leading problem "Segmentation of Lung Nodules in a CT scan using Deep Convolutional Networks "with controlling the effect of false positives by adding a second stage Neural Network.
- Developed a model to the leading edge problem, "Classification of Lung Nodules Malignancy" from a segmented lung nodule in a CT scan using Deep Learning.
- Implementation of an annotation tool prototype using Watershed algorithm and Web-Technologies (HTML,Javascript). Created an application that can convert CT data from single to multi planar format.
- Summer Intern at Defence Research Laboratory (DLRL), Hyderabad, India.

(May 2017 - July 2017)

Ethernet Based Device Control System Using ARM Microcontroller-SAMA5D3Xplained Created a
User-Interface that can be used to control electronic devices which are connected via Ethernet. Got
acquainted with Embedded C and Html

#### **PROJECTS**

- Optic Disk and Cup Segmentation in Fundus Images using Convolutional Neural Networks and Image processing techniques for faster and efficient diagnosis of glaucoma (Aug 2018-Dec 2018)
- End to End Development of Devanagari script letter Classification using Convolutional Neural Networks and MEAN stack.

  (Oct 2018-Nov 2018)
  - Link to Interactive web-page/model: <a href="https://morning-anchorage-56517.herokuapp.com">https://morning-anchorage-56517.herokuapp.com</a> Git-Hub: <a href="https://github.com/bharath000/devanagari">https://github.com/bharath000/devanagari</a>
- Implemented an efficient File Search Algorithm over a Local MP3 Database in MATLAB using Audio Finger Printing Technique. (Aug 2017 –Nov2017)
- Development of an online Interpolation Caluculator which computes Newton's forward and backward differences. (Aug 2017-Nov 2017)
  - Git-Hub: https://github.com/bharath000/Interpolation-caluculator
- Designed and developed frontend for more than four websites, online fare calculator for distance transported using HTML, Jquery, Javascript, Bootstrap, Angular JS (Aug 2017-Dec 2019) Git-Hub: https://github.com/bharath000/

#### **MOOC CERTIFICATIONS:**

- Machine Learning.
- Data Science using Python by Michigan University.
- Applied plotting, charting and data representation in python
- Applied Machine Learning in python
- · Applied text mining in python
- Advanced Machine Learning/Deep Learning using TensorFlow https://www.coursera.org/account/accomplishments/certificate/YZ8QZFV5RJM2
- SQL for data science
- Web Development(html, css, Javascript)
- Practical PHP for Dynamic Webpages

### TECHNICAL SKILLS

- Programming Languages: Python, MATLAB, C, C++ (Learning), and Verilog.
- Machine Learning/Deep Learning: Numpy, Pandas, Sci-kit Learn, Scipy, Keras, Jupyter Notebooks, Spyder, Tensor Flow, Py Torch, Tensorflow
- Software's/Tools: Anaconda, Mentor Graphics for DFT, Xilinx Vivado, Proteus.
- Web Development: Html, CSS, CSS3, Javascript, Bootstrap, MEAN (Mongo DB, Express JS, Angular JS, Node JS), and also familiar with JQuery, PHP, MySQL, Apache-Cordova, Ionic for multiple platform app development, Adobe illustrator (SVG).

## AREAS OF INTEREST

- Machine Learning/Deep Learning, NLP, Computer Vision, AI
- Data Science and Big Data Engineering
- · Full stack development/Web application development
- Algorithms and Data structures

### **EXTRA-CURRICULAR ACTIVITIES**

- Participated in Radio Controlled Nitro Car event as a team in tech fests of IIT Guwahati, NIT Warangal and BITS Pilani Hyderabad.
- Participated in Jarvis Machine Learning event of Shaastra, IIT Madras Tech Fest.
- Avid sportsman in Badminton, Chess and Bowling.