



UNT College of **ENGINEERING**

Senior Design Day 2023



Department of
**COMPUTER SCIENCE
AND ENGINEERING**

Senior Design Day 2023



INFORMATION TECHNOLOGY

Senior Design Day 2023



Clueless Gifts

Professional Stack Overflow Pursuers

Team Members:

- Chris Collins
- Andrew Serna
- Elizabeth Tan
- Philip Gyan
- Uchenna Okonkwo

External Sponsors/Mentors:

- Jeremy Willson

Internal Sponsors/Mentors:

- Jeremy Wilson
- Dr. David Keathly

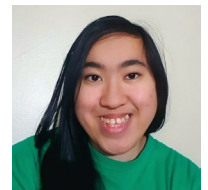
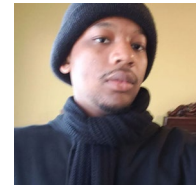
Abstract:

Clueless Gifts is a website that aims to provide a platform wherein users can create an account and list their preferences/personal information when receiving gifts. (E.g.: Clothing sizes, favorite colors, favorite hobbies, etc.)

Users will then be able to share this information with a chosen network made up of other users.

Users will be able to link their profiles from affiliate websites (Amazon, Etsy, eBay, etc.) to link their wish lists to Clueless Gifts.

The website will generate revenue by funneling links to products on affiliate websites, who will then pay a percentage of sales to Clueless Gifts.



Project: CSE Display

Team: CSE Solutions

Team Members:

- Nghia Phan
- Terrica Thomas
- Rui Qiu

External Sponsors/Mentors:

Internal Sponsors/Mentors:

- Alejandro Olvera

Abstract:

The plugin we are building for the CSE department of UNT solves the problem of displaying the latest news, updates, and events in an interactive and visually appealing manner. The department needs a solution to efficiently showcase important information to students, faculty, and staff, but the current methods are outdated and not engaging. The plugin will pull posts from the department's WordPress site and display them as a carousel on screens located throughout the department's buildings, providing a modern and dynamic way to communicate important information.

This plugin helps the people that the department serves by providing an easy and engaging way to access important news and updates. Students, faculty, and staff can quickly and easily view the latest information on upcoming events, new courses, faculty research, and more.

What makes this plugin unique and innovative is its ability to provide dynamic and visually appealing content to screens located throughout the department's buildings. The plugin's carousel format provides an interactive and modern way to display information, keeping the department's community engaged and informed. Additionally, the plugin is flexible and customizable, allowing the department to easily update the content and design of the carousel to fit their specific needs and branding.



Team Name: Web Spinners

Project Name: OurTally

Team Members:

- **Daniel Brozovic:** Project Manager, System / Database Administrator, and Co-Lead Backend Developer
- **Moses Chism:** Backend Developer
- **Marilyn Hinojosa:** Co-Lead Backend Developer
- **Caitlin Peer:** Lead Frontend Developer, UI Designer

External Sponsors/Mentors:

- Keith Moon

Internal Sponsors/Mentors:

- Dr. Keathly

Abstract:

OurTally is a project based on a single idea: what if content creators could monetize polling? This project is a service designed to allow fans of content creators to buy points that can then be used to vote on polls set up by content creators. These points will then be cashed out for real money by the content creators in order to monetize polling. The main use case of this is simple. A content creator might want to poll the audience to see what game to stream on Twitch, or something along those lines. This way, they can earn money through that.



Krypton-IT

Team Members:

- Diego Solis
- Eduardo Mendoza
- Tyler Schnitzer
- Luan (Andy) Le

External Sponsors/Mentors:

- Parker Wallace

Internal Sponsors/Mentors:

- David Keathly
- Jamie Adams

Abstract:

CirclesU is a new and innovative social media application developed by Parker Wallace. This application is designed to connect individuals in a unique and meaningful way by allowing them to create small, intimate groups called "Circles". These Circles can be created based on common interests, locations, etc.

CirclesU has been hitting its beta testing on the campus of the University of North Texas on IOS and Android since late 2022.

Additionally, CirclesU offers a variety of tools and features to enhance the user experience, including direct messaging, the ability to share photos, videos, and posts. With its user-friendly interface and robust feature set, CirclesU is the perfect platform for connecting with others and building meaningful relationships online.



NutriSuite Pro

Team SaaSquatch

Team Members:

- Flordeliz Guillory, Database Administrator
- Julian Wilson, Project Manager
- Luis Martinez, Front-End Lead Developer
- Malik Perera, Team Scribe & Design Lead
- Sean McNulty, Back-End Lead Developer

External Sponsors/Mentors:

- Amber Wilson, RDN

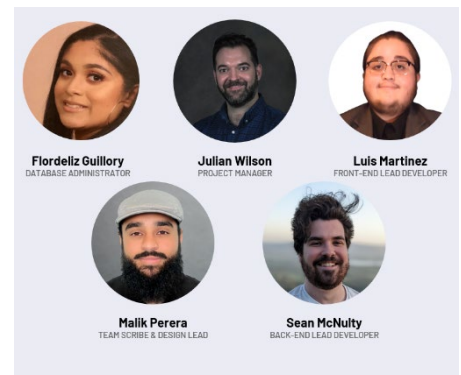
Internal Sponsors/Mentors:

- David Keathly, Assoc. Chair of Undergraduate Studies

Abstract:

This SaaS is a web-based application addressing the shortcomings of currently available software on the market for dietitians and nutritionists in their business practice. Other software available for this market typically will contain only a few of the necessary components to manage a private practice.

The goal here is to create a comprehensive application, which will serve as an all-in-one solution to manage all aspects of private practice in dietetics/nutrition as outlined by the client, as well as exceeding industry standards in terms of application security.



Electric Eagles Remote Care System

Team Members:

- Nicholas Newbury
- Cesar Romo
- Alexander Zuehlke

External Sponsors/Mentors:

- Deb Conway

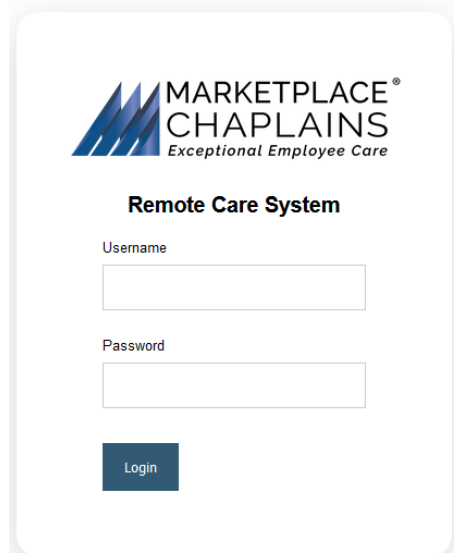
Internal Sponsors/Mentors:

- Professor David Keathly

Abstract:

Marketplace Chaplains aims to provide quality counseling services across the United States for various organizations and companies. They currently have Chaplains that are assigned to visit designated workplaces on a regular basis, though there are also Chaplains that are assigned to support some accounts where the workforce is entirely remote, thus presenting the need for an online environment to aid in scheduling counseling for remote clients.

We are creating a web application that will act as a scheduling service for Chaplains that can be accessed to view important information such as assigned organizations, their contact information, and notes from previous conversations. Both Chaplains and Management within Marketplace Chaplains will have access to the system.



The screenshot shows the login interface for the Remote Care System. At the top is the Marketplace Chaplains logo with the tagline 'Exceptional Employee Care'. Below the logo is the title 'Remote Care System'. There are two input fields: 'Username' and 'Password'. Below the password field is a blue 'Login' button.

Coaching App

KKJ

Team Members:

Katelyn Piet-Provo, Kishan Anwary, Joshua Kim

External Sponsors/Mentors:

Jordan Duran

Internal Sponsors/Mentors:

Professor Keathly

Abstract:

The coaching app is an application where users find and schedule coaching sessions with verified coaches of the desired skill level. Users who wish to be coaches themselves have the option to advertise themselves to users on the app and find nearby students through a premium option. The application will allow for an easy and effective way to schedule, communicate, and track progress for users and coaches. Long term engagement and continued use of the application is the main goal. The app was created by a team of three students from the University of North Texas as their Capstone Project.



Senior Design Day 2023



UNT TA/IA Cubicle Reservation TAMI

Team Members:

- Tyler Tice
- Alex Reeder
- Michael Butzlaff
- Israel Alvarado

External Sponsors/Mentors:

Internal Sponsors/Mentors:

- Alejandro Olvera

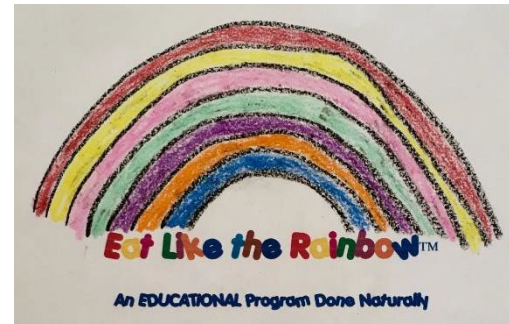
Abstract:

The University of North Texas engineering school, Discovery Park, needs a new scheduling system for their teacher and instructional assistants. The current system is being implemented on a shareable google spreadsheet where TA/IA's can reserve cubicles for their office hours. This spreadsheet is then turned into a poster to be posted outside of TA/IA's offices for viewing. The scheduling system is proving to have many issues and design flaws that make it an inefficient system in its current state.

The members of the group TAMI have taken on this project in order to implement a brand-new scheduling system for the TA/IA's of Discovery Park. Our objective will be to create this new system, that will eliminate any issue or design flaws, and to create a new framework to increase greater efficiency, usability, and experience to users.



Eat Like The Rainbow Animation Internet Explorers



Team Members:

- Jacob Shelton
- Andrew Minnich
- Boniya Philomon
- Nupur Rishi

External Sponsors/Mentors:

- Chef Cathy Zeis

Internal Sponsors/Mentors:

- Mr. David Keathly (Instructor)

Abstract:

Eat Like the Rainbow, Inc is a nonprofit created to fight the epidemic of childhood obesity. It caters to children in Kindergarten through 4th grade; from religious beliefs, to sleeping patterns, to manners, following rules, and what to eat.

The Rainbow Garden is an activity that lets Adam Apple take you on an adventure through the rainbow garden! Adam and his friends will guide you through videos, quizzes and games to help you learn about the garden. It starts off with 2 questions asking the kids to match the picture or add the fruits, in addition there is an activity at the bottom of the page which is a word search.

Moreover, they have a bunch of games like puzzles, word searches and printable games.

The company currently has a completed app and website with educational programs, however they need a 3-1/2 minute animated tour of the Rainbow Garden for the website. Our job is to create the animation according to the specification criterias. This animation will be an introduction to the program on their website, www.eatliketherainbow.org.



Thank you to the whole ELTR board team for their feedback and suggestions for our video.

Home Application - BDGS



Team Members:

- David Al-Khafaji
- Gabriel Sanchez
- Bayler Blanchard
- Serena Zachariah

External Sponsors/Mentors:

- Stuart Opp

Internal Sponsors/Mentors:

- Professor David Keathly

Abstract:

The objective of this application is to create a platform in which three different IoT devices are connected. The IoT devices are Brivo, Ring, and Ecobee+. We built a web application to facilitate the process of identifying individuals at the door and granting them entry; as well as allowing employees to be able to control the temperature of the room.





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engineering.unt.edu
940.565.4300