



# WEATHER WEAR

Presented By Team - 3 Bad Ideas

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# THIS IS OUR TEAM



**Helloween James**

Project Manager & Machine  
Learning Engineer



**Gracia Betty  
Jebaraj Daniel**

Frontend Developer & UI/UX  
Designer



**Tejaswini  
Kandyala**

Frontend Developer

# THIS IS OUR TEAM



**Bharadwaj Reddy  
Asireddy**

Backend Developer & UI/UX  
Designer



**Mohith Durga  
Srinivas  
Ttripuramallu**

Backend Developer



**Sai Rajeswari  
Ghanta**

Quality Assurance Tester

# PROBLEM STATEMENT

The weather keeps changing constantly, which makes it unpredictable. This causes difficulties for people in selecting which clothes to wear. It causes inconvenience, discomfort, and even wasted time for people. Since people don't know how the weather is going to be or can't predict the weather, they may end up either being underdressed or overdressed.



# PROJECT DESCRIPTION

<b>Project Name:</b>	Weather Wear
<b>Team:</b>	Bad Ideas
<b>Project Description:</b>	<p>Predicts weather and suggests clothing</p> <p><b>For</b> Users</p> <p><b>who</b> do not know have the time to wear clothes or buy them according to the weather</p> <p><b>the</b> Weather Wear Application</p> <p><b>is a</b> Weather-Based Clothing Recommendation System</p> <p><b>that</b> it suggests clothing options based on current weather forecasts using advanced machine learning.</p> <p><b>unlike</b> other weather applications or clothing accessories</p> <p><b>our application</b> helps users pick the best outfits for their travel plans, activities, or packed schedules. Considering the weather, it makes getting dressed easier whether you're on the go or planning a trip.</p>
<b>Benefit Outcomes:</b>	<ul style="list-style-type: none"><li>• Saves time and allows users on better planning.</li><li>• Users need not be worried about them being overdressed or underdressed.</li><li>• This makes them prepared for the unpredictable weather.</li><li>• Makes the selection of clothes seamless</li></ul>
<b>Github Link:</b>	<a href="https://github.com/htmw/2024F-Bad-Ideas/wiki">https://github.com/htmw/2024F-Bad-Ideas/wiki</a>

# PERSONAS

# HANNAH

This is Hannah, Age 28. She stays in New York City, NY and she is Product Manager.

- **Life Style:** She commutes everyday and she meets a lot of clients.
- **Weather and Clothing:** NYC weather is totally unpredictable as it can rain, be sunny or be cold anytime. She likes wearing formal clothes.
- **Technology usage:** She loves trying out new apps.
- She is busy person and always wears uncomfortable dress which does not align well with weather, so she needs something which can set her to wear clothes which doesn't waste her time.



# JASON

This is Jason, Age 34. He stays in Seattle, WA, and he is a Software Engineer.

- **Life Style:** He commutes to the office twice a week and enjoys biking when the weather permits.
- **Weather and Clothing:** Seattle's weather is unpredictable, with frequent rain and sudden changes. He prefers casual and comfortable clothing but often finds himself either underdressed for cold weather or overdressed when it warms up unexpectedly.
- **Technology usage:** He is tech-savvy and enjoys trying out new apps to improve efficiency.
- He frequently faces issue with choosing the right clothes due to the constant change in weather and he needs a solution that helps him dress appropriately for the day.



# ANANYA

This is Ananya, Age 22. She stays in Mumbai, India, and she is a College Student.

- **Life Style:** She walks around campus a lot, balancing her classes, internships, and extracurricular activities.
- **Weather and Clothing:** Mumbai's weather can be unpredictable, with sudden rain showers or humid heat. She likes trendy, comfortable clothes but struggles to dress appropriately when the weather changes quickly.
- **Technology usage:** She uses multiple apps to manage her busy schedule and lifestyle.
- She often finds herself either drenched in rain or overheated due to sudden weather changes and needs something that will help her choose the right outfit for the day without wasting time.



# TECHNOLOGIES

## Frontend

- Next JS
- Shadcn
- Tailwind CSS

## Backend

- Flask
- Open weather API

## Database

- MongoDB

# TECHNOLOGIES

## Deployment

- Vercel
- AWS

## Machine Learning

- Scikit Learn
- Pytorch

## Tools

- Figma
- VSCode
- Codespaces
- Github
- Postman

# ABOUT FRONTEND TECHNOLOGIES

So here next js is used for building the website because next js is one of the best frontend frameworks and with integration with shadcn and tailwind css, building minimalistic website easier.



# ABOUT BACKEND TECHNOLOGIES

So flask, one the best lightweight backend library and it can be used for production as well but for minimal tasks and open weather API, which is most important part of this application because it gives the live data about the weather.



# ABOUT DATABASE TECHNOLOGIES

MongoDB is one the best NoSQL database and as the application data can also be unstructured, this would be best option to choose it. This also have fast retrieval ( read operations) compared to SQL databases, so this is better choice for this application.



# ABOUT DEPLOYMENT TECHNOLOGIES

Here, first vercel is used for deploying the frontend part of the application and aws is used for deploying backend and machine learning as well because NextJS works seamless in vercel, as vercel are the one who developed Next js.



# ABOUT MACHINE LEARNING TECHNOLOGIES

So here scikit learning is primarily used for building the basic version of the machine learning algorithms and in later on stages, Pytorch is used for build even more accurate version of the machine learning which understands the weather even more better and predicts it well.



# ABOUT TOOLS TECHNOLOGIES

Figma is mainly used for prototyping and design how the product looks like. VSCode is where actually the code is written. Codespaces is where the collaboration code is done, for pair programming. Github is where whole code is hosted. Postman is for testing the API endpoints.



# ALGORITHMS

## Predicting Weather

### Random forest regressor

- Used to predict weather conditions like temperature or humidity by learning patterns from historical weather data through decision trees that capture non-linear relationships.

### LSTM

- A recurrent neural network used to predict future weather by capturing long-term dependencies and patterns in sequential weather data over time.

## Recommendation

### KNN (k-nearest neighbours)

- Used to recommend outfits by finding similar users (or outfits) based on user preferences and weather conditions, suggesting clothing choices that worked for users with similar profiles or conditions.

# PROJECT SCHEDULE

	A	B	C	D	E	F	G
1	<b>MEETING SCHEDULE</b>						
2							
3	DAYS						TIMING
4							
5	Monday						8pm-10pm
6	Thursday						8pm-10pm
7							
8							
9							
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12							
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14							
15							
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18							
19							

Sheet1



# TEAM AGREEMENT

## 1. Team Information

- **Project Title:** Weather Wear
- **Team Name:** Bad Ideas
- **Team Members and Roles:**
  - Helloween James – Project Manager & Machine learning engineer
  - Gracia Betty Jebaraj Daniel – Front-end developer & UI/UX Designer
  - Tejaswini Kandyala – Front-end developer
  - Mohith Durga Srinivas Tripuramallu – Back-end Developer
  - Bharadwaj Reddy Asireddy - Back-end Developer & UI/UX Designer
  - Sai Rajeswari Ghanta - Quality Assurance (QA) Tester

## 2. Meetings and Communication

We will meet twice a week and we shall use what's app, email, outlook(pace) and Zoom as our communication for any updates and response should be within 2-3hrs. An in-person meeting an hour before our class for major updates.

# TEAM AGREEMENT

## 3. Work Distribution

Everyone in the team agrees to share the work equally and if any member feels overwhelmed, we will redistribute the tasks.

## 4. Conflict Resolution

- If we have any sort of disagreement in the tasks assigned, we'll talk it through vote.
- If the conflict cannot be resolved internally, we will reach the professor for an advice.

## 5. Deadlines

- We will set deadlines for each task and everyone agrees to stick to them and if someone can't meet a deadline, they should inform the team in advance.
- We agree to submit everything on time, with everyone's contribution.

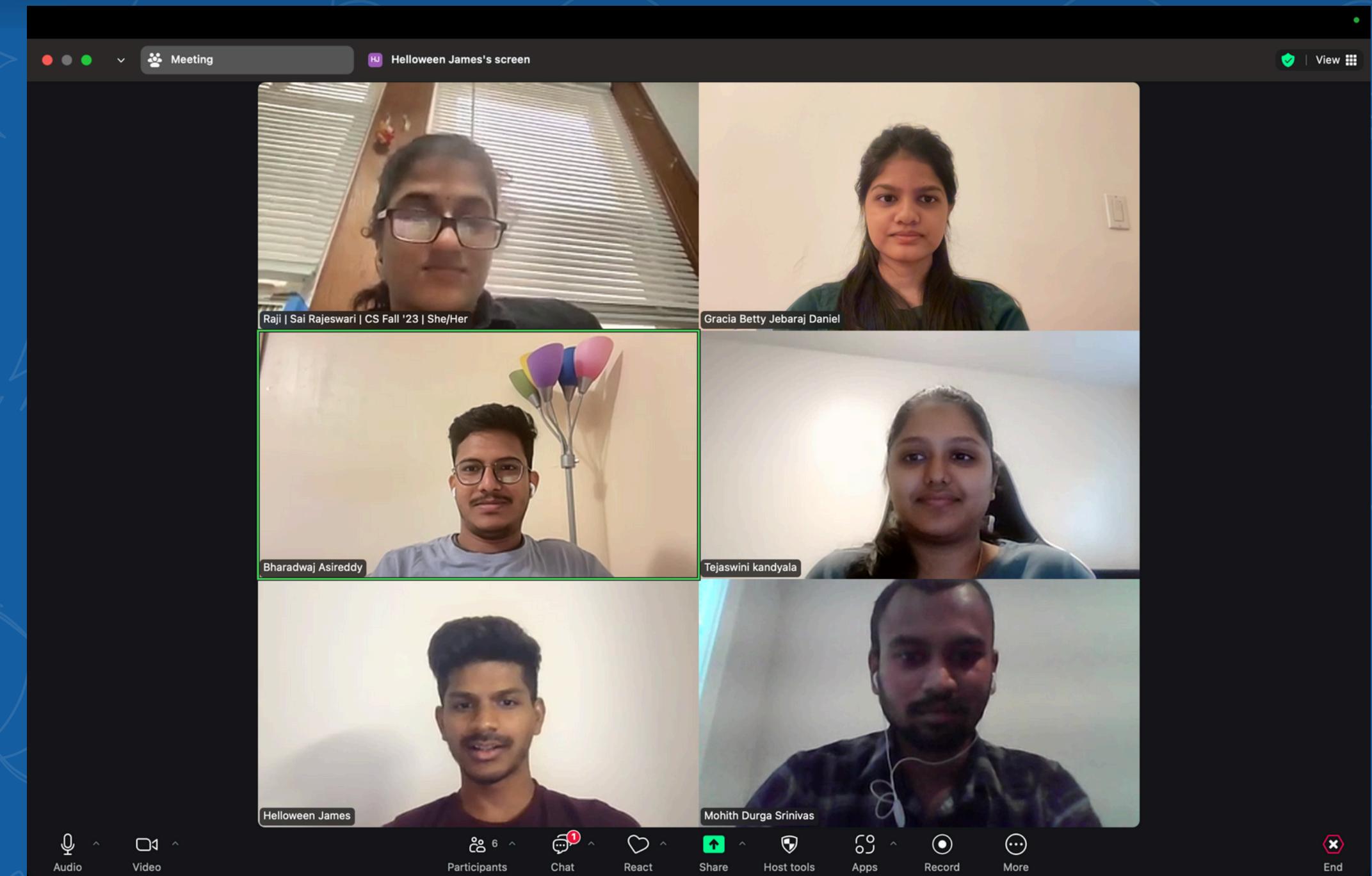
# RETROSPECTIVE

IdeaBoardz start typing to filter stickies Export Login

Sprint 0

What went well +		What can be improved +		Action Items +	
Role assignment + 0	A common idea of what our capstone project should be on + 1	group involvement + 1	timeline precision + 0	breakdown the project into sprints + 0	weekly meeting scheduling + 1
setup GitHub wikipage + 1	discussing the project + 2	Collaborative work between ourselves. + 1	more meetings + 1	sticking to our meeting schedule + 0	Votes on tasks that aren't being accepted by all. + 0
creating presentation + 1	Team co-ordination + 1	fixing the meetings time + 2	the schedule and deadlines can be more strict + 0	Creating deadlines and sticking to it + 0	sticking to the deadlines of our respective tasks. + 0
upcoming sprint planning + 0	There was a clear idea + 0	Completing the tasks two - three days earlier , so we can review + 0			

# RETROSPECTIVE



# WIKIPAGE

<https://github.com/htmw/2024F-Bad-Ideas/wiki>

# THANK YOU

