	TSA-SD WORK LOG				
Date	Task	Time involved	Team member respon sible (stude nt initia ls)	Comments	
2/06/25	Uploading images via ReactJS Made architectural design	2.5 hrs	KP	Uploading an image- KP	
2/10/25	Built ReactJS App	7.5 hrs	SH	Learned ReactJS Created basic frontend app and CSS formatting- SH	
2/16/25	Training AI and setting up Flask server	3 hrs	SH, SS, KP	AI failed to work- Kanisk Flask server running- Kanisk	
2/17/25	Fixing AI and starting React frontend	5 hrs	SH, SS, KP	SS: Front-end development and backend debugging KP: AI development and training SH: Front End CSS	
2/19/25	Bootstrapping, Adding frontend features, fixing lag from when the user analyzed an image and got their result back	2.5 hrs	SH, SS, KP	SH: Button animation, Button styling, navbar styling  KP: AI bootstrapping, Results and diagnosis page frontend, fixed Upload + Analyze page bug, home page animation/features description. Bootstrapping issue  SS: Navbar styling, Upload button styling, home page animation/features description	

2/21/25	Frontend work and animations	1.5 hrs	SH, SS, KP	SH: Upload page styling and animations, features description SH: KP:
2/22/25	Home page front end and image slider Fixing AI model	2 hrs	SH, KP, SS	SH:Image slider and animation SS: Image slider and animation KP: Fixing AI model
2/26	Editing front end	1.5 hrs	SH	Fixed modal size and color Edited size and titles of diagnosis page
3/12	Editing front end	1.5 hrs	SH	Made some changes to the front end slider. Added a hero section.
3/13	Adding animations	1.5 hrs	SH	Added basic animations using tailwind. Changed the color scheme of the homepage.
3/15	Added animations Revamped front end Introduced a new dictionary for AI	SS: 4 hrs KP: 5 hrs SH: 5 hrs	SH, KP, SS	SS & SH:Added animations throughout the homepage SS: Changed color theme of the website SH: Added modals to further explain each plant disease KP: Added a new dictionary and ran epochs
3/16	Edited color theme and fixed features page	1.5 hrs	SH, KP, SS	SH: Fixed color scheme and fixed features page SS: Designed AI Results Page KP: Attempted to fix AI training
3/18	Finish Slider	0.5 hrs	SH	Added a hero section in the slider (left div)

3/24	Front-end light/dark mode Revamped diagnosis page Fixed AI accuracy graph	1.5 hrs	SH, SS, KP	SH: Fixed home screen light/dark theme, fixed upload page, revamped diagnosis page SS: Fixed AI accuracy graph and fixed home screen KP: Made diagnosis page slider and tried to fix AI
3/28	Front-end light/dark mode Fixed AI and AI accuracy graph	4 hrs	SH, SS, KP	SH: Fixed diagnosis page and upload page light/dark theme, revamped modals, edited disease descriptions SS: Fixed scroll animations, fixed backend server issues, fixed accuracy graph KP: Fixed AI successfully, fixed AI accuracy chart
3/29	Continue front end Fix AI accuracy graph	1.5 hrs	SH, KP	SH: Upload page and homepage slider frontend KP: Editing accuracy graph function
4/06	Revamp Frontend Architectural Software Design Finish Backend and AI	4.5 hrs	SH, KP, SS	Finalized and finish AI and backend code Finalized architectural design

4/09	Revamp Diagnosis Page frontend	1.5 hrs	SH, KP	
4/10	Revamped Upload Page Revamp navbar Added login function	KP: 4 hrs SH: 2.5 hrs	SH, KP	Login function works
4/11	Finish Navbar	0.5 hrs	KP	KP: Added navbar animation
4/12	Fixed minor issues with frontend Make AI results code Pitch	KP: 5 hrs SH: 3 hrs	SH	KP: Fixed the AI Results page and added login features and clear history buttons SH: Fixed minor coloring issues

4/13	Finalized and polished the app	6 hrs	SS, KP, SH	Finalized all pages of frontend Revamped AI Chart
4/14	Fixed frontend errors	1 hrs	KP	

## Works Cited

## **Images**

- Couleur. 6 Sept. 2018, pixabay.com/photos/paprika-pods-multicoloured-fiery-3659548/.

  Accessed 14 Apr. 2025.
- H., Goran. 6 Oct. 2023, cdn.pixabay.com/photo/2023/10/06/19/51/corn-8299009\_1280.jpg.Accessed 14 Apr. 2025.
- lumix2004. 2 Dec. 2016, cdn.pixabay.com/photo/2016/11/30/15/00/apples-1872997\_1280.jpg.

  Accessed 14 Apr. 2025.
- Wellington, Jill. 31 Oct. 2015, cdn.pixabay.com/photo/2015/10/24/20/03/apples-1004886\_128.

  Accessed 14 Apr. 2025.

## Research

- "Black Rot of Apple." Extension.umn.edu, extension.umn.edu/plant-diseases/black-rot-apple.
- Cleveland clinic. "Fungal Infection (Mycosis): Types, Causes & Treatments." *Cleveland Clinic*, 2022, my.clevelandclinic.org/health/diseases/24401-fungal-infections-mycosis.
- Coque, Juan José R., et al. "Advances in the Control of Phytopathogenic Fungi That Infect Crops through Their Root System." *Advances in Applied Microbiology*, 2020, pp. 123–170, https://doi.org/10.1016/bs.aambs.2020.01.003. Accessed 26 Jan. 2022.
- Davis, R.M., et al. "Powdery Mildew on Vegetables / Home and Landscape / UC Statewide IPM Program (UC IPM)." *Ucanr.edu*, 2015, ipm.ucanr.edu/home-and-landscape/powdery-mildew-on-vegetables/pest-notes/#gsc.tab= 0.

"Definition of BLIGHT." Www.merriam-Webster.com,

- www.merriam-webster.com/dictionary/blight.
- "FarmRaise | Farm Pest Management." *Www.farmraise.com*, www.farmraise.com/blog/battling-bugs-a-guide-to-common-pests-on-farms-and-crops.
- "Fungal Leaf Spots of Trees and Ornamentals." *CT.gov Connecticut's Official State Website*, portal.ct.gov/CAES/Fact-Sheets/Plant-Pathology/Fungal-Leaf-Spots-of-Trees-and-Ornam entals.
- Grabowski, Michelle. "Leaf Spot Diseases of Trees and Shrubs." *Extension.umn.edu*, 2024, extension.umn.edu/plant-diseases/leaf-spot-diseases-trees-and-shrubs.
- Koetter, Rebecca, and Michelle Grabowski. "Apple Scab of Apples and Crabapples." *Extension.umn.edu*, 2024, extension.umn.edu/plant-diseases/apple-scab.
- "MSU Extension | Montana State University." *Msuextension.org*, 2018, apps.msuextension.org/montguide/guide.html?sku=MT202205AG.
- P, Vijai, and ian. "Bacterial Spot of Tomato." *Wisconsin Horticulture*, hort.extension.wisc.edu/articles/bacterial-spot-of-tomato/.
- Randaci, Angelo. "Common Plant Diseases & Disease Control for Organic Gardens." *Earth's Ally*, 10 Mar. 2021, earthsally.com/disease-control/common-plant-diseases.html.
- "Root Rot Causes, Symptoms, Prevention, and Control." *Elite Tree Care*, www.elitetreecare.com/library/tree-diseases/root-rot/.

## **AI Training Datasets**

- Bhattarai, Samir. 2017. New Plant Diseases Dataset,
  www.kaggle.com/datasets/vipoooool/new-plant-diseases-dataset. Accessed 14 Apr. 2025.
- Emmanuel, Tairu Oluwafemi. 2019. *Plant Disease*, www.kaggle.com/datasets/emmarex/plantdisease. Accessed 14 Apr. 2025.