

# **Photographic Technology**

Spokane, Washington

2026

Participant 27392010

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## 1. Theme Summary

This was my first time competing in a TSA competition, or even a photography competition, and naturally, I felt daunted. What story could I tell with my photos? I'd never really thought of that before. After thinking for a while, I realized that one story I could tell, and one that would be fitting for my first photography contest, was the story of how I've grown as a photographer and how my love of birds and birding has helped me to grow in that skill. I felt that my first photo should be one of my earliest ones and should reflect the beginning of my journey. For those reasons, I chose my photo of a Barn Swallow from Billy Frank Jr. Nisqually National Wildlife Refuge (NWR), which was the first photo I ever took that I felt really proud of. I thought that the second photo should show both how I grew as a birder and a photographer in the following years. My picture of a Hawai'i 'Amakihi fit the bill, as it was the first good photo I got after upgrading to a new camera lens. Since then, while my passion for birds has continued to grow, I have begun experimenting with photographing other subjects as well. I thought that my third photo should then be one of my macro photos of an insect. I landed on one of an Eight-spotted Skimmer. My fourth photo is one I took of my brother while I was birding one evening, and it represents how I've begun to overcome my tendency to get so absorbed in birding that I stop being present to the people around me. For my fifth, I decided on an arrangement of my birding guides, which have been instrumental parts of my birding journey, with my great, great grandmother's bird guide at the top, showing how birding is a small part of my family's legacy and how it will continue to be a part of it through me.

## 2. Color

**Camera make:** Nikon

**Camera model:** D3200

**F-stop:** 5.6

**Exposure time:** 1/500 s

**ISO:** 800

**Focal length:** 200mm

**Description:** This is a photo of a Barn Swallow at Billy Frank Jr. Nisqually NWR that I got when I was still using a 55-200mm lens, and it strongly represents the beginning of my love for birding and photography. As I began birding more frequently in 2024, I started wanting to take pictures of what I saw. At first, the photos weren't great, and they were never edited, but by late summer, I was consistently getting photos that I was proud of, even if the details and sharpness were lacking because of my inexperience. This Barn Swallow photo was the first picture I got that I was truly proud of, and it also represented the marriage of birding and photography in my life. To edit this photo, I decreased the highlights and minimally boosted the contrast and saturation. Then, I used masks to sharpen the swallow and to increase the exposure in front of the bird as well as slightly darken the background.



### **3. Student Choice**

**Camera make:** Nikon

**Camera model:** D3200

**F-stop:** 6.3

**Exposure time:** 1/500 s

**ISO:** 2200

**Focal length:** 400mm

**Description:** For the first year of my photography, I had used a 55-200mm lens to take pictures of birds. The main problem with that was that, often times, birds don't care to let you get close enough to use a 200mm lens on them. So, for my 15<sup>th</sup> birthday, I put my savings along with contributions from my family towards getting a 100-400mm Tamron lens, and this photo of a Hawai'i 'Amakihi at Hosmer Grove in Haleakalā National Park on Maui was the first good photo I took using that lens, and it remains one of my favorite photos to this day. To edit this photo, I raised the exposure a bit and adjusted the tint and warmth to balance the photo's color. Then, I used masks to add sharpness to the bird and decrease noise in the background, as well as adding a gradient to further raise the exposure in front of the bird.



## 4. Macro

**Camera make:** Nikon

**Camera model:** D3200

**F-stop:** 6.3

**Exposure time:** 1/800 s

**ISO:** 400

**Focal length:** 400mm

**Description:** I got this photo of an Eight-spotted Skimmer last year in June at a local park. The year before, I had enjoyed birding throughout the summer, but as summer came again in 2025, I started to notice the insects that were coming out, and the plants that were growing and blooming, and I gained a new appreciation for them. As a result, I took plenty of macro shots over the course of the year, and it was difficult to choose which one I wanted to use at first. Eventually, I landed on this one because it shows the skimmer up close, allowing the viewer to appreciate the beautiful details, which can be easily overlooked when they're seen in person. This photo also shows how I've gained a deeper appreciation for nature through birding, and how I've been able to overcome my historical fear of insects and "creepy crawlies" through my immersion in nature as a result of birding. To edit this photo, I used masks to increase the sharpness of the skimmer and to darken the areas around it, creating a custom vignette of sorts. I also used a mask to brighten the skimmer and the area above it, and increased the exposure, and to a lesser extent, the saturation and vibrancy of the entire photo as well.



## 5. Black and White

**Camera make:** Nikon

**Camera model:** D3200

**F-stop:** 4.5

**Exposure time:** 1/640 s

**ISO:** 400

**Focal length:** 150mm

**Description:** I took this photo of my brother while birding one evening in January of 2025, while he was sitting on a rock overlooking the Puget Sound. I'm not sure what inspired me in that moment to take the picture, but it represents a realization I've had as I've continued to grow as a birder: I don't want to become so focused on birds that I begin to miss everything else around me. This photo shows how I've grown as a human as well as a photographer; it shows how I've made efforts to be present to people while birding. Editing this photo didn't require any major changes besides desaturating the image. After the image was black and white, I made small adjustments to the lighting such as increasing the contrast and decreasing the exposure and used masks to add exposure to the subject while darkening the surrounding areas.



## 6. Still Life

**Camera make:** Nikon

**Camera model:** D3200

**F-stop:** 6.3

**Exposure time:** 1/500 s

**ISO:** 100

**Focal length:** 55mm

**Description:** For my first four photos, I felt that I already had material that fit the prompts, and each told a unique element of my journey. My final picture though, the part that represents where I am now, where I've been, and where I'm going, required a new photo. I felt that the best representation of my birding journey would be a compilation of my birding guides, which I've relied on as I've travelled around the US and learned about the birds that live across the country. I also decided that it would be significant to include one of my great, great grandmother's birding guides from the early 1900s, representing how my love of birds isn't a new story, but a continuation of a small part of my family's legacy that I can now pass on to others. Editing this photo required that I decrease the highlights and whites in the image significantly since the books were in direct sunlight. Then, I slightly increased the warmth and saturation of the overall image. Finally, I used a series of masks to darken the area surrounding the books, make small adjustments to the saturation and warmth, and change the lighting a bit more to add focus to the old birding guide at the top.



## **5. References and Resources**

**Camera:** Nikon D3200

**Lenses:** Nikon DX AF-S NIKKOR 55-200mm 1:4-5.6G ED, Tamron 100-400mm F/4.5-6.3 Di VC USD, Nikon DX AF-S NIKKOR 18-55mm 1:3.5-5.6 G

**Software:** Adobe Lightroom Mobile, Photos app (Apple), Microsoft Word

**Hardware:** iPhone 11, Dell Latitude 3140

## 6. Student Copyright Checklist

### STUDENT COPYRIGHT CHECKLIST (for students to complete and advisors to verify)

**STUDENT:** Answer question 1 below.

- 1) Does your solution to the competitive event integrate any type of music and/or sound?  YES  NO

If NO, go to question 2.

If YES, is the music and/or sound copyrighted?  YES  NO

If YES, move to question 1A. If NO, move to question 1B.

1A) Have you asked for author permission to use the music and/or sound in your solution and included that permission (letter/form) in your documentation? If YES, move to question 2. If NO, ask for permission and if permission is granted, include the permission in your documentation.

1B) Is the music/sound royalty free, or did you create the music/sound yourself? If YES, cite the royalty free music/sound OR your original music/sound properly in your documentation.

**CHAPTER ADVISOR:** Sign below regarding your student's answer(s) to the use of music/sound in his/her competitive event solution. Even if your student answers "NO" to question 1, please sign below noting that you have evaluated the competitive event solution and the student answered the question(s) accurately.

I, \_\_\_\_\_ (chapter advisor), have checked my student's solution and confirm that any use of music/sound is done so with proper permission and is cited correctly in the student's documentation and/or the solution has been found to have no music/sound included.

**STUDENT:** Answer question 2 below.

- 2) Does your solution to the competitive event integrate any graphics/videos?  YES  NO

If NO, go to question 3.

If YES, is(are) the graphics/videos copyrighted, registered and/or trademarked?  YES  NO

If YES, move to question 2A. If NO, move to question 2B.

2A) Have you asked for author permission to use the graphics and/or videos in your solution and included a permission (letter/form) in your documentation for graphic/video used? If YES, move to question 3. If NO, ask for permission and if permission is granted, include the permission in your documentation.

2B) Is(are) the graphics/videos royalty free, or did you create your own graphic? If YES, cite the royalty free graphics/videos OR your own original graphics/videos properly in your documentation.

**CHAPTER ADVISOR:** Sign below regarding your student's answer(s) to the use of graphics/videos in his/her competitive event solution. Even if your student answers "NO" to question 2, please sign below noting that you have evaluated the competitive event solution and the student answered the question(s) accurately.

I, Melissa Moffett (chapter advisor), have checked my student's solution and confirm that the use of graphics/videos with proper permission and is cited correctly in the student's documentation and/or the solution has been found to have no graphics/videos included.

**STUDENT:** Answer question 3 below.

- 3) Does your solution to the competitive event use another's thoughts or research?  YES  NO

If NO, this is the end of the checklist.

If YES, have you properly cited other's thoughts or research in your documentation?  YES  NO

**CHAPTER ADVISOR:** Sign below regarding your student's answer(s) to having integrated any thoughts/research of others in his/her competitive event solution. Even if your student answers "NO" to question 3, please sign below noting that you have evaluated the competitive event solution and the student answered the question(s) accurately.

I, \_\_\_\_\_ (chapter advisor), have checked my student's solution and confirm that the use of the thoughts/research of others is done so with proper permission and is cited correctly in the student's documentation and/or the solution has been found to have all original thought with no use of other's thoughts/research.

Student Initials: SS

Chapter Advisor Signature: Melissa Moffett



## 7. Photo Consent Form



Washington Technology Student Association

PO Box 1635  
Goldendale, WA 98620

### PHOTO/FILM/VIDEO CONSENT AND RELEASE

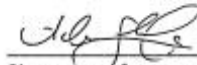
I hereby give permission for appropriate images of my child, captured during Washington Technology Student Association (W.T.S.A.) activities through film, photo or video, to be used solely for the purposes of W.T.S.A. promotional materials and publications, and I waive any rights of compensation or ownership thereto.

Hudson Shaeffer

Name of minor (please print)

Adam Shaeffer

Name of minor's parent or guardian (please print)



Signature of parent or guardian

1.22.26

Date