

Carter Gilton  
Bachelor of Science in Visual Communication Design  
Graduated Summa Cum Laude from Arizona State University

Generative AI was not used in the creation of any work or text shown in this portfolio

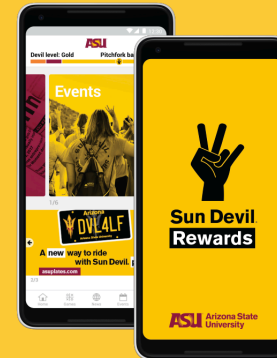
Demo reel  
<https://youtu.be/ShAI2gQ1WhY>

# SUN DEVIL REWARDS

Client: Arizona State University

Working as a production designer for Arizona State University, I produced lockups, layouts, digital banners, and print-ready pieces from ideation up until publication. ASU has strict brand guidelines for typography, iconography, photography, and interaction of elements. This made the work interesting - I had the chance to be creative within narrow constraints.

Designs created using Adobe Photoshop, Illustrator, Indesign, and XD. Project management conducted in the Google Suite and Wrike. CMS used was NextBee.

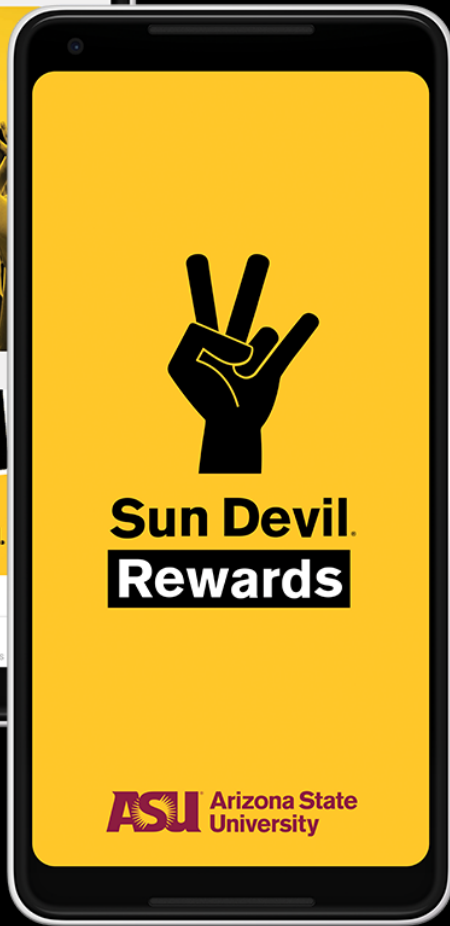
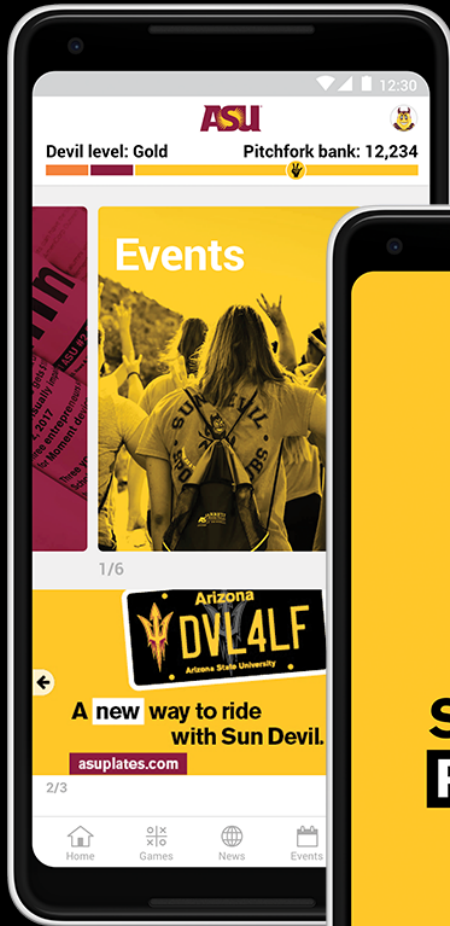


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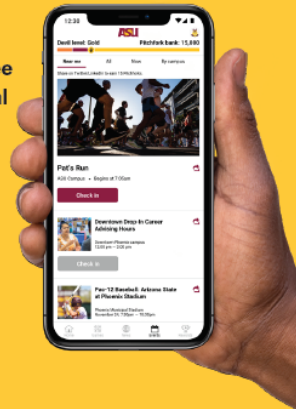
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**Hey !member.firstName!**

It's a great day to be a Sun Devil. The !rewardOptionName! you redeemed is now being processed. And, !redeemedPointsCount! Pitchforks were deducted from your account.

Hang on to this email as your receipt; you should receive your reward within 4-6 weeks.

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# PWT TREATED LVL

Client: Pacific Woodtech

On Foerstel's creative team, I worked under the senior designer and creative director to design branding for Pacific Woodtech's then-upcoming engineered woodproduct. Client requested a brand-aligned wordmark that communicated their modern, engineered sensibilities.

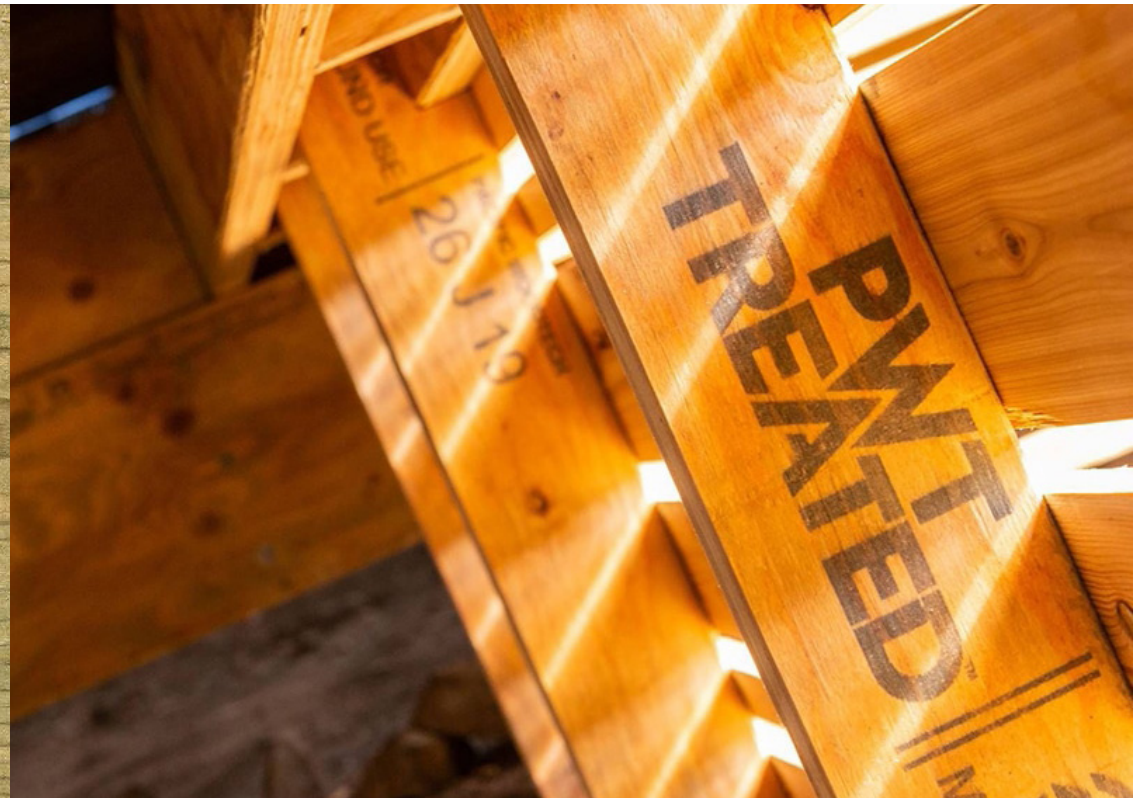
I proposed names, researched trademarks of existing product, sketched rough designs, and digitally illustrated concepts until our team arrived at the final branding.

The logotype uses bold, typographically active sans-serif letterforms to communicate strength and heft through weighty interlocking elements.



**PWT  
TREATED™**  
TREATED RIGHT™

**PWT  
TREATED™**  
TREATED RIGHT™





## PACKAGING DESIGN

*Client: Emerald Health, Good Karma*

As a designer on the Foerstel creative team, I designed packaging dielines from concept to print-ready. I worked alongside the senior designer to make client products ready for the shelves.

Emerald Health launched a line of bioceutical supplements, and we found that striking macro photography paired with delicate, two-tone typography communicated client values of health, natural living, and nourishment.

Good Karma required a rebrand of their entire dairy free line. Using flowing forms, bright colors that evoke fruits and flavor, and a smiling new logo, we gave Good Karma a cohesive product family and striking shelf appearance.



# WEB DESIGN

Client: *Natural Intelligence*

Natural Intelligence, machine learning and AI tech startup, approached me needing a website. Their only brand assets were their logo and their mission.

Natural Intelligence had a number of concepts they needed to communicate to clients and investors, so my design focused on spacing out each concept with custom brand-aligned iconography that communicated expertise and approachability on this complex subject.

Designed in Adobe XD and Illustrator, built in Wordpress using Elementor.

# Pattern based Neuromorphic Computing

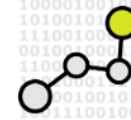
Machine learning that thinks like a brain, learns rapidly, and explains itself completely. Because data scientists need to know *why*.

Try it Now



Small data-  
set  
accuracy

High accuracy with a fraction of the data.  
Resilient to noise and missing data.



Explainable  
AI

Provides detailed interpretation of  
predictions for higher confidence, more  
transparent decisions



Online  
learning

Auto detects anomalies and new classes  
and adapts to evolving data

## Learn Faster with Less Data

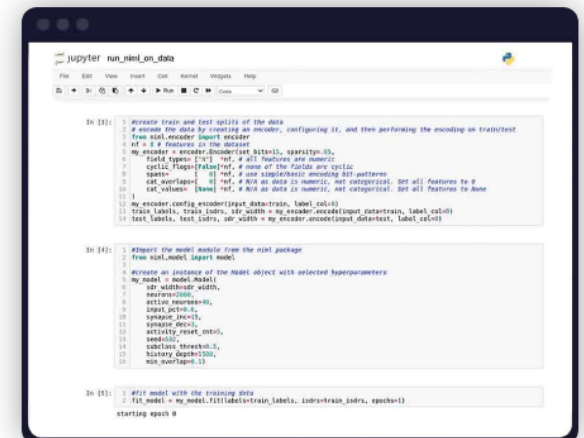
The Natural Intelligence neuromorphic machine learning system is fundamentally different than current approaches because it is based on patterns – the same way human brains actually work. Our model delivers what no other solution in the past has succeeded in delivering.

### Faster Learning

Speed through training with efficient methods designed to be resilient to imbalanced and imperfect data.

### Future Forward

We're building a world in which AI works the way people think, so that people can work smarter and live better.



```

jupyter run_nml_on_data

In [1]: # Create train and test splits of the data
# encode the data by creating an encoder, configuring it, and then performing the encoding on train/test
from nml.encoder import encoder
n = 8 # number of features in the dataset
my_encoder = encoder.Encoder(n_bits=10, sparsify=0)
# field types: 'cat' ref. # all features are numeric
# cyclic: True/False ref. # none of the fields are cyclic
# sparse: 0/1 ref. # use sigmoidal encoding bit patterns
# cat_overlaps: 0/1 ref. # use as data is numeric; not categorical; set all features to 0
# cat_values: [None] ref. # N/A as data is numeric; not categorical; set all features to None
n

In [2]: my_encoder.config_encoder(input_data=train, label_col=0)
train_labels, train_ids, test_labels, test_ids = my_encoder.encode(input_data=train, label_col=0)
test_labels, test_ids, test_width = my_encoder.encode(input_data=test, label_col=0)

In [3]: # Import the model module from the nml package
from nml.model import model

# Create an instance of the Model object with selected hyperparameters
my_model = Model(model,
                 get_width=width,
                 neurons=10,
                 input_bits=8,
                 output_bits=8,
                 sparse_inc=1,
                 sparse_dec=1,
                 activity_reset_on=0,
                 enable_learn=1,
                 history_depth=100,
                 max_overlap=1)

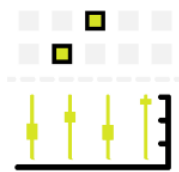
In [4]: # Fit model with the training data
fit_model = my_model.fit(labels=train_labels, ids=train_ids, epochs=1)
starting epoch 0
    
```

## Benefits of a Pattern Based Machine Learning approach



### Built-in Explainability

Provides factors behind predictions, anomalies and new clusters, describing signatures of your observations. Understand drivers behind your model and build confidence in your results.



### Accurate with Imbalanced Data

No need to balance training data sets. Learn new classes independently without requiring retraining of the entire model.



### Accurate with Small Data Sets

Requires a fraction of the data of Artificial Neural Networks.



### Resilient to Low Quality Data

Resilient to data issues including missing values, noisy data, or irregular entries.



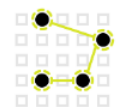
### Reduce Model Maintenance

Online learning reduces or eliminates the need for retraining. Independently train new classes.



### Standard Workflows

Natural Intelligence integrates with your environment, increasing speed to adoption.



### Learns New Classes Quickly

Automatically identify anomalies and other changes in the data with few shot learning techniques.



### Adapts to Drifting Data

Data drift can be identified and (optionally) the model can adapt and track the drifting data.

# Neuromorphic Computing System

Develop models within your standard workflow using Python and Jupyter™ Notebooks.

## Build

Our Pattern-based Machine Learning system is available as a Platform as a Service on AWS.

## Train and Predict

Deliver predictions and explanations to your application using Natural Intelligence APIs.

## Run

```

In [1]: 1 #create train and test splits of the data
2 # encode the data by creating an encoder, configuring it, and then performing the encoding on train/test
3 from sklearn import encoder
4 nfeat = 8 # features in the dataset
5 my_encoder = encoder.FeatureHasher(nfeat=10, sparsity=0.5,
6 field_types={'cat': 'int', # all features are numeric
7 'cat': 'string'}) # none of the fields are cyclic
8 spars = [ 0 ] # use simple/naive encoding bit patterns
9 cat_overlaps = [ 0 ] # cat as data is numeric, not categorical. Set all features to 0
10 cat_values = [None] # cat as data is numeric, not categorical. Set all features to None
11
12 my_encoder.config_encoder(input_data=train, label_cat=0)
13 train_labels, train_idsrs, sdr_width = my_encoder.encode(input_data=train, label_cat=0)
14 test_labels, test_idsrs, sdr_width = my_encoder.encode(input_data=test, label_cat=0)
15
16 #import the model module from the nisl package
17 from nisl_model import model
18
19 #create an instance of the Model object with selected hyperparameters
20 my_model = model.Model(
21     sdr_width=sdr_width,
22     neurons=2000,
23     active_neurons=10,
24     input_pc10=0,
25     synapse_decay=0,
26     synapse_decay=0,
27     activity_reset_rate=0,
28     seed=0,
29     subsample_neighbors=5,
30     history_depth=1000,
31     min_overlap=0.1)
32
33 #fit model with the training data
34 fit_model = my_model.fit(labels=train_labels, idsrs=train_idsrs, epochs=1)
35
36 starting epoch 0
    
```

## Leveraging the amazing processing method of the human brain.

### The Challenge

Data Scientists increasingly run into the shortcomings of today's AI systems: Predictions that are opaque and models that require huge datasets to train and yet are brittle – thus requiring constant retraining. They face big tradeoffs between accuracy, explainability and flexibility.

### Our Solution

The Natural Intelligence Neuromorphic computing architecture pushes past the constraints of today's AI/ML systems by delivering more useful, understandable and actionable information while reducing the time and cost associated with collecting and labeling data.



## CHARACTER DESIGN

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Non-commercially, I create renders, character designs, and 3D models. All accessories are modeled and materialized from scratch using a hard-surface workflow.

The base mesh and rig of the characters pictured were created by animator Jonathan Chaddock.

3D models and final render scenes created in Blender (3.1, 4.2, 4.5) Cycles and Unity. Materials created in Adobe Substance 3D Painter. Layouts created in Adobe Photoshop and Illustrator.



DESIGNATION:  
**SUBJECT ELA-62SM** INDUCTED, ACTIVE  
AUTHORIZED AS FIELD OPERATIVE

COLLOQUIAL NAME:  
*Coffee*



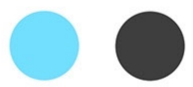
PAWPADS, EARS:



FUR COLORATION:



TAG, EYES, COLLAR:

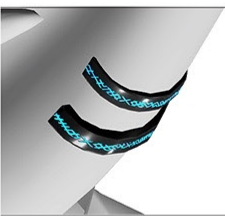


NOTE<sub>1</sub>  
Chained collar with shattered holo ring



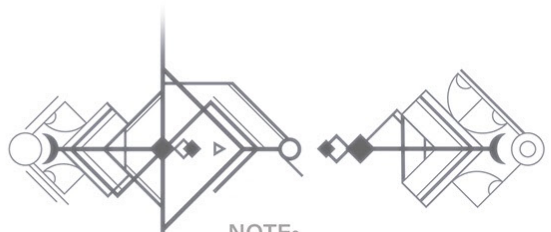
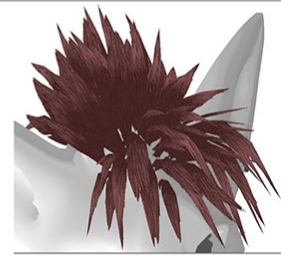
NOTE<sub>2</sub>  
Anklet on right ankle

NOTE<sub>3</sub>  
Wolf-like teeth and long claws (front-right fang missing)

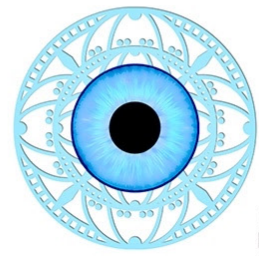


NOTE<sub>6</sub>  
Tag on left ear

NOTE<sub>7</sub>  
Feather crest on head, back, elbows, wrists



NOTE<sub>8</sub>  
Metal inlay down right forearm and paw



NOTE<sub>9</sub>  
Patterned inner eye, lightly glows blue

# Cassidy

Male | Canis  
Wants to be your friend!



Upper back  
bird marking



Thigh  
feather marking



Studded bracelets  
(always wearing)

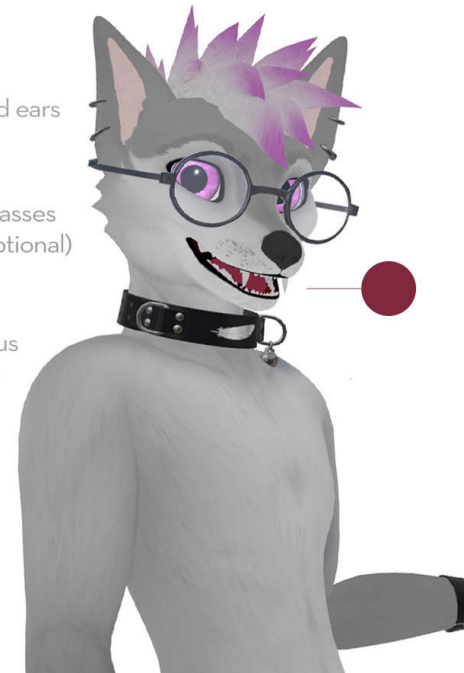


Inlaid leather bell collar  
(it jingles)

Pierced ears

Round-frame glasses  
(optional)

Friendly and curious  
(occasionally barks)



# WEB DESIGN

Client: Hoofbeats with Heart

Equine therapy non-profit Hoofbeats with Heart needed a from-scratch redesign of their website to conform to modern standards and increase usability with the growth of their programs. My design focuses on bright and friendly photography with the home page and each category receiving hero images of people and horses.

Design is responsive and uses soft accents and thin rules and patterns to distinguish elements without overwhelming the imagery and usability of the site.

Designed in Adobe XD. Photo elements edited in Photoshop, graphic elements created in Illustrator.



## Our Programs

<p><b>Riding Lessons</b> Our NARHA-certified instructors teach riders to guide their equine partners to start, stop, turn and walk</p>	<p><b>Summer Camp</b> Focusing on a wide range of activities designed to practice social and life skills, therapists use the nature...</p>	<p><b>Equine Therapy</b> Our program partners horses with humans. The approach is learning by interaction with the horse, but not</p>	<p><b>Hippotherapy</b> This treatment takes place within a controlled environment where therapists use sensory exercises</p>
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## The Four-Legged Therapists

<b>Shortie</b> 31 yr old Quarter Pony, retired Gymkhana horse, used for Therapeutic Riding and in...	<b>Riley</b> 24 yr old QH gelding, retired show horse, used in all of our programs; Hippotherapy...	<b>Grace</b> Pony mare, used in Hippotherapy, Therapeutic Riding, and our Riding Lesson...	<b>Arrow</b> Arrow 30 year old retired show horse who had a very successful show career western please...
<b>Charlie</b> 26 yr old Appaloosa mare, retired barrel horse, used in our Hippotherapy, Dignity Health...	<b>Dillinger</b> 13 yr old gelding, retired barrel horse, used in our Therapeutic Riding, Riding Lesson, and...	<b>Pace</b> Is a twenty year old gruelia qtr horse mare who is the "go to" for or clients in wheelchairs.	<b>Jackson</b> Jackson is a 24 year old retired quarter horse gelding Buckskin who loves to go on long trail...

## Recent Blog Posts

<p><b>Therapist Needed!</b> Hoofbeats with Heart is one of the leading providers of in home and on site therapy throughout Central</p>	<p><b>Meet Charlotte</b> Charlotte is a 16-year-old Westphalian mare with a successful history in the hunter competition ring.</p>	<p><b>Rodeo Video</b> Watch this 1 minute promo!</p>	<p><b>Meet Volunteers</b> This month's featured volunteer is Alanis Murphey! Alanis is a fifteen year old high school sophomore who</p>
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### About

Mission  
Photos/Videos  
Legal

### Enroll

Steps to Enroll  
FAQ

### Address

43491 N Coyote Rd  
San Tan Valley, AZ 85140  
+1 602 421 7718

### Social





# Hoofbeats with Heart

Header 5, unselected, #484848

About Us Program Types Is it right for us? Enroll Volunteer Donate Contact

80px

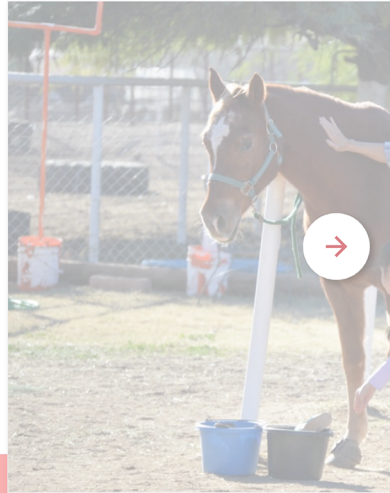
80px

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Search field

Header 5, selected, #DB8388



130px

68px

21px

## Our Programs — Header 2

40px

Carousel bleed



60px



60px



Minor Rule 2pt, #DE5861

### Riding Lessons — Header 2

Fusce lorem elit, elementum vitae magna vitae, finibus porttitor leo. Class aptent taciti sociosqu ad litora torquent

### Summer Camp

Nostra, per inceptos himenaeos. Vestibulum ut imperdiet tellus, sed congue leo. Nulla vestibulum hendrerit

### Equine Therapy

Libero blandit vel. Quisque laoreet, nulla eu sodales dapibus, metus enim faucibus metus, sit amet luctus nibh

### Hippot

Sed conseq commodo r Quisque ut

## The Four-Legged Therapists

40px

### Shortie — Header 3

31 yr old Quarter Pony, retired Gymkhana horse, used for Therapeutic Riding and in...

Body 3

### Riley

24 yr old QH gelding, retired show horse, used in all of our programs; Hippotherapy...

32

### Grace

Pony mare, used in Hippotherapy, Therapeutic Riding, and our Riding Lesson...

### Arrow

Arrow 30 year old retired show horse who had a very successful show career western please...

### Charlie

26 yr old Appaloosa mare,

### Dillinger

13 yr old gelding, retired barrel

### Pace

Is a twenty year old gruellu qtr

### Jackson

Jackson is a 24 year old retired



### Riding Lessons

Enroll

Inquiry Form

Our NARHA-certified instructors teach riders to guide their equine partners to start, stop, turn and walk over obstacles. Horses help people feel that they can control their situation because of the direct correlation between the action of a rider and the reaction of the horse.

Riding helps empower people and enables them to be more connected on a personal level.



### Summer Camp

Enroll

Inquiry Form

English and Western riding lessons are offered for all ages from beginner to intermediate taught by a accomplished equestrian.

Summer camps are offered for those with disabilities and for the able-bodied. Campers learn how to groom and work around horses, basic horse care, how to saddle and bridle a horse and receive riding lessons.



### Equine Therapy

Enroll

Inquiry Form

This therapy allows clients to have experiences, assisted by the horse, that teach humans about themselves, promotes recognition of dysfunctional patterns of behavior, and helps define healthy relationships. The horse as facilitator responds to the emotional state of the client.

The Equine Specialist working with a licensed behavioral health professional interprets the horse's behavior and reaction to the client, enabling clients to become aware of their own behaviour.



### Hippotherapy

Enroll

Inquiry Form

This treatment takes place within a controlled environment where therapists use sensory exercises customized to the rider.

The exercises in combination with the rhythmic motion of the horse develops balance, strength



## C L O C K

---

As a donation to an Arizona State University auction and as a social initiative, I designed and produced a functional clock.

The clock speaks to the loss of language in the United States due to lack of support for bilingual speakers, especially those whose first language is not English.

The piece sold at auction. It is two-layer white and clear acrylic, with vinyl-cut text on each layer. The ticker mechanics are prefab with a sheet metal hour hand and 3D printed second ticker.

The clock was nominated for ASU Design Excellence and the design was on display in Herberger Institute for the Arts.

...ve cost \$200, but health insuran  
 ...estado pero inclu

...ne way, a cold front is going to a  
 ...propósito, nos va a un

# Hello! How are you? ¡Hola! ¿Cómo estás?

...reaking News: Just like that, we're  
 ...oticia Instantánea: ¿podemos

...f you want to apply for food st  
 ...quieres para

Loss of Language in the USA  
 Pérdida de en los EEUU

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 ...propósito, nos va a un

Hello! How are you?  
 ¡Hola! ¿Cómo estás?

...reaking News: Just like that, we're able  
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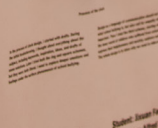
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...f you want to apply for food stamps, write th  
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GRA 461: Fall 2019  
 Visual Communication  
 Design V

Student: Carter Gilton  
 Instructors: Alfred Saura &  
 Eric Montgomery



GRA 461: Fall 2019  
 Visual Communication  
 Design V

Student: Skyelee Lee  
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 Eric Montgomery

PTSD and MDMA  
 a vision of peace



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 Visual Communication  
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 Visual Communication  
 Design V

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