



Fractal Factory

Code is Art

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Brandon Kline, and Eric Stenton



Team Pictures



Eric Stenton (CS)



Brandon Kline (IT)



Candice Rivera (CS)



Kenny Mejia (CS)

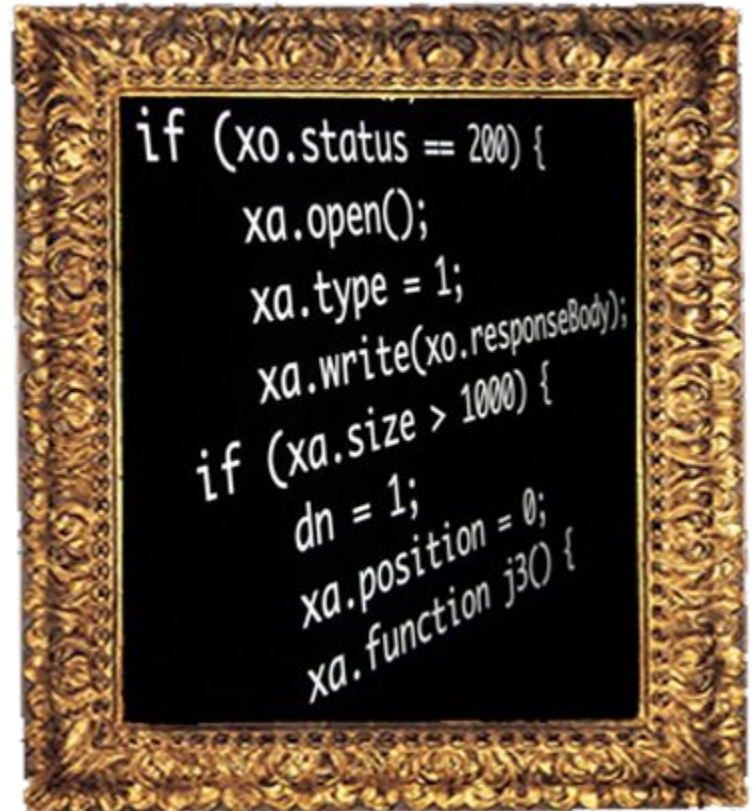


Jada Tijani (IS)



Is Coding An Art ?

- Indentation
- Spacing & use of whitespace
- Comments & documentation
- Line length



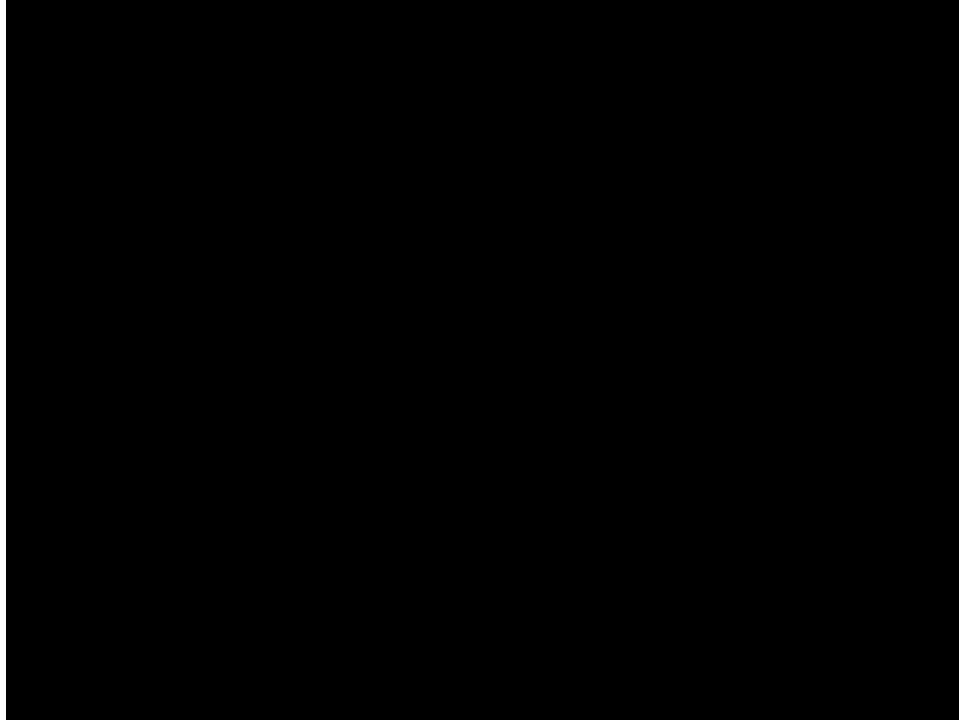
```
<div id="id03" class="modal">
  <form class="modal-content animate" action="/auth/cas" method="GET">
    <div class="imgcontainer">
      <span onclick="document.getElementById('id03').style.display='none'" class="close" title="Close Modal">&times;</span>
      
    </div>
    <div class="container">
      <button type="submit">Marist Login</button>
    </div>
  </form>
</div>
```

```
<div id="id04" class="modal">
  <form class="modal-content animate" action="/auth/facebook" method="GET">
    <div class="imgcontainer">
      <span onclick="document.getElementById('id04').style.display='none'" class="close" title="Close Modal">&times;</span>
      
    </div>
    <div class="container">
      <button type="submit">Facebook Login</button>
    </div>
  </form>
</div>
```

```
<div id="id05" class="modal">
  <form class="modal-content animate" action="/auth/twitter" method="GET">
    <div class="imgcontainer">
      <span onclick="document.getElementById('id05').style.display='none'" class="close" title="Close Modal">&times;</span>
      
    </div>
    <div class="container">
      <button type="submit">Twitter Login</button>
    </div>
  </form>
</div>
```




Promotional Video

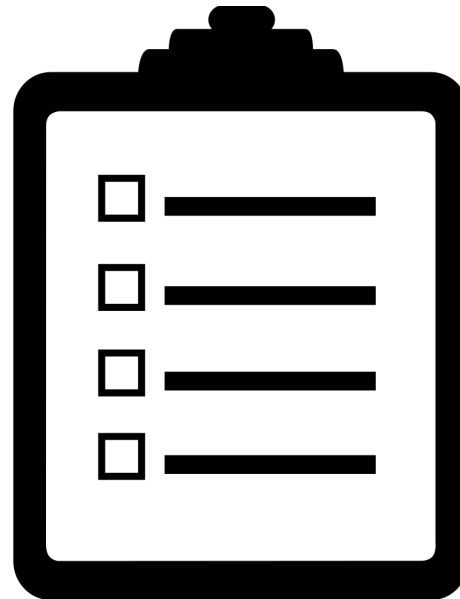


[Link if above doesn't work](#)



Requirements

- Create a service that allows users to upload programming code
- Analyze the code and produce an artistic image that represents it
- Allow users to select a painting that will affect their artistic image





Process

User Code

```
/**
 * return how many sides this Die has
 * pre: none
 * post: return how many sides this Die has
 * @return the number of sides on this Die
 */
public int getNumSides()
{ return DNumSides; }

/**
 * get the current result or top number of this Die
 * pre: none
 * post: return the number on top of this Die
 * @return the current result of this Die
 */
public int getResult()
{ return DResult; }
```



BAM Image



Painting

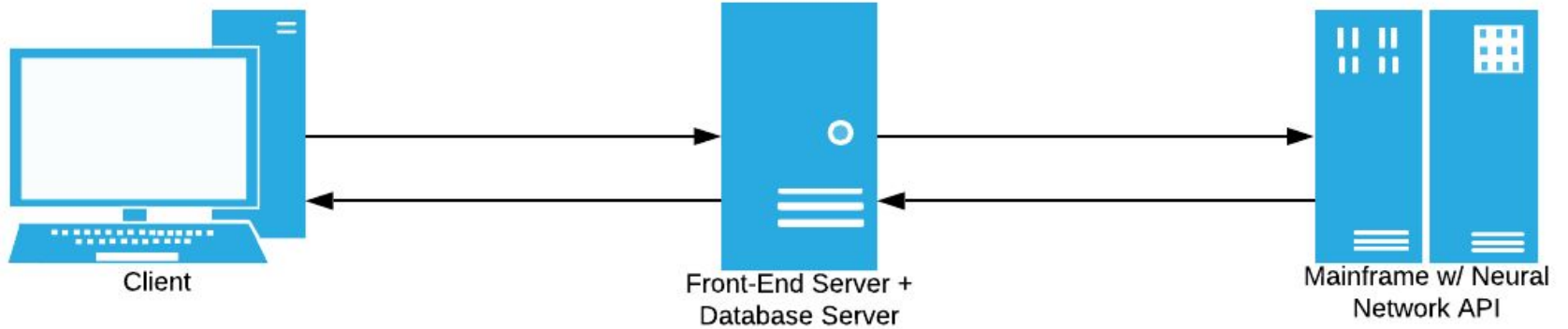


New Art





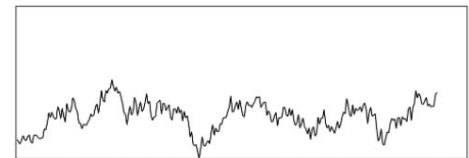
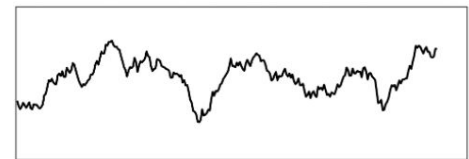
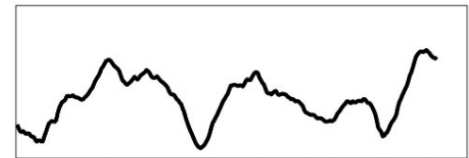
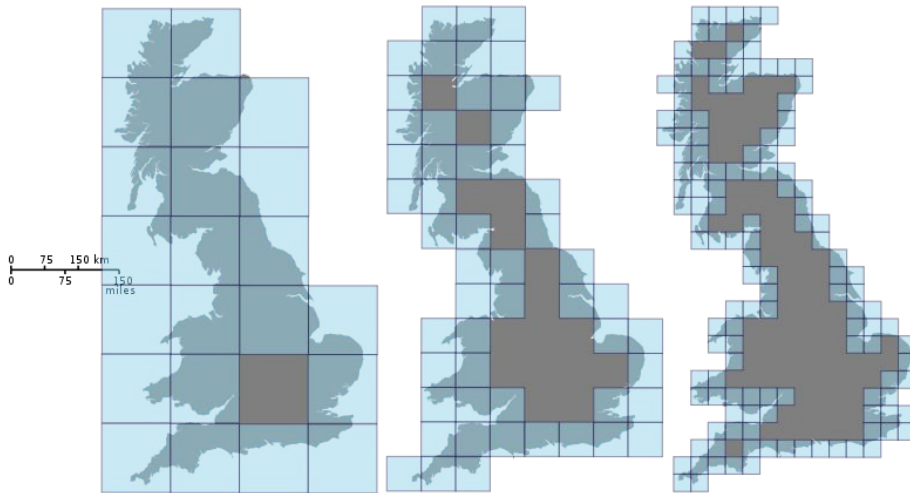
Infrastructure





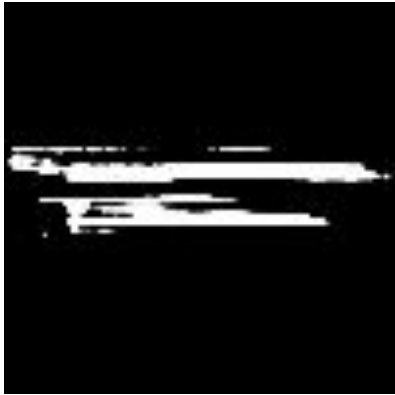
Fractal Dimension

“In mathematics, Hausdorff dimension (a.k.a. fractal dimension) is a measure of roughness and/or chaos that was first introduced in 1918 by mathematician Felix Hausdorff”





Neural Network



BAM latent space



Painting latent space at different stages



Paintings during training



Demo



FRACTAL FACTORY

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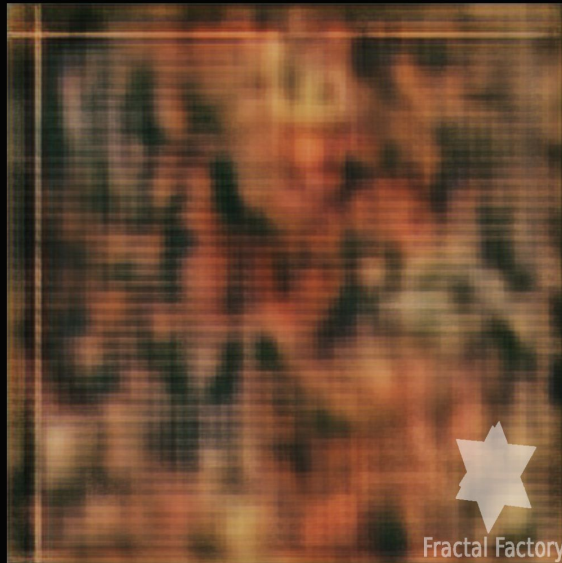


1

Uploads

LETS UPLOAD!

GALLERY



8-39e262ca76a6



Fractal Factory Upload

Choose a file

Submit

```
# Python 3: List comprehensions
>>> fruits = ['Banana', 'Apple', 'Lime']
>>> loud_fruits = [fruit.upper() for fruit in fruits]
>>> print(loud_fruits)
['BANANA', 'APPLE', 'LIME']

# List and the enumerate function
>>> list(enumerate(fruits))
[(0, 'Banana'), (1, 'Apple'), (2, 'Lime')]
```

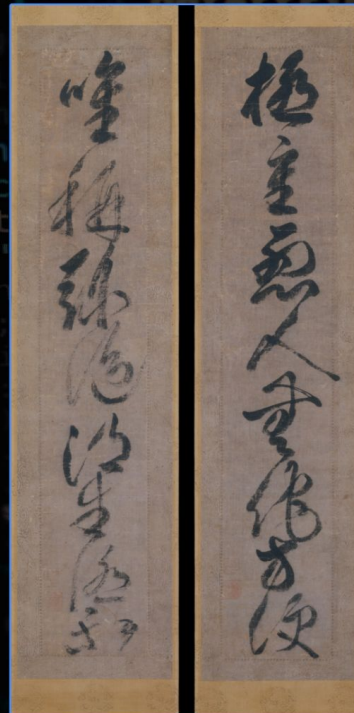
Submit Text Area



Here are your Matches!



Title: Eight Daoist Immortals
Painter: Kano Tanshin
(Morimasa)
Year: 1699



Title: Buddhist Maxim on the
Saving Power of Amida
Painter: Gukyoku Reisai
Year: 1452



Title: Still Life with
Strawberries in a Compote
Painter: Severin Roesen
Year: 1870



Here is your art!



[REMOVE WATERMARK](#)

[BUY CANVAS PRINT](#)



The Future



**The International Joint
Conference on Neural Networks**



Jada (IS)



Candice (CS)



Eric (CS)



Brandon (IT)

Thank You!
Any Questions?



Kenny (CS)