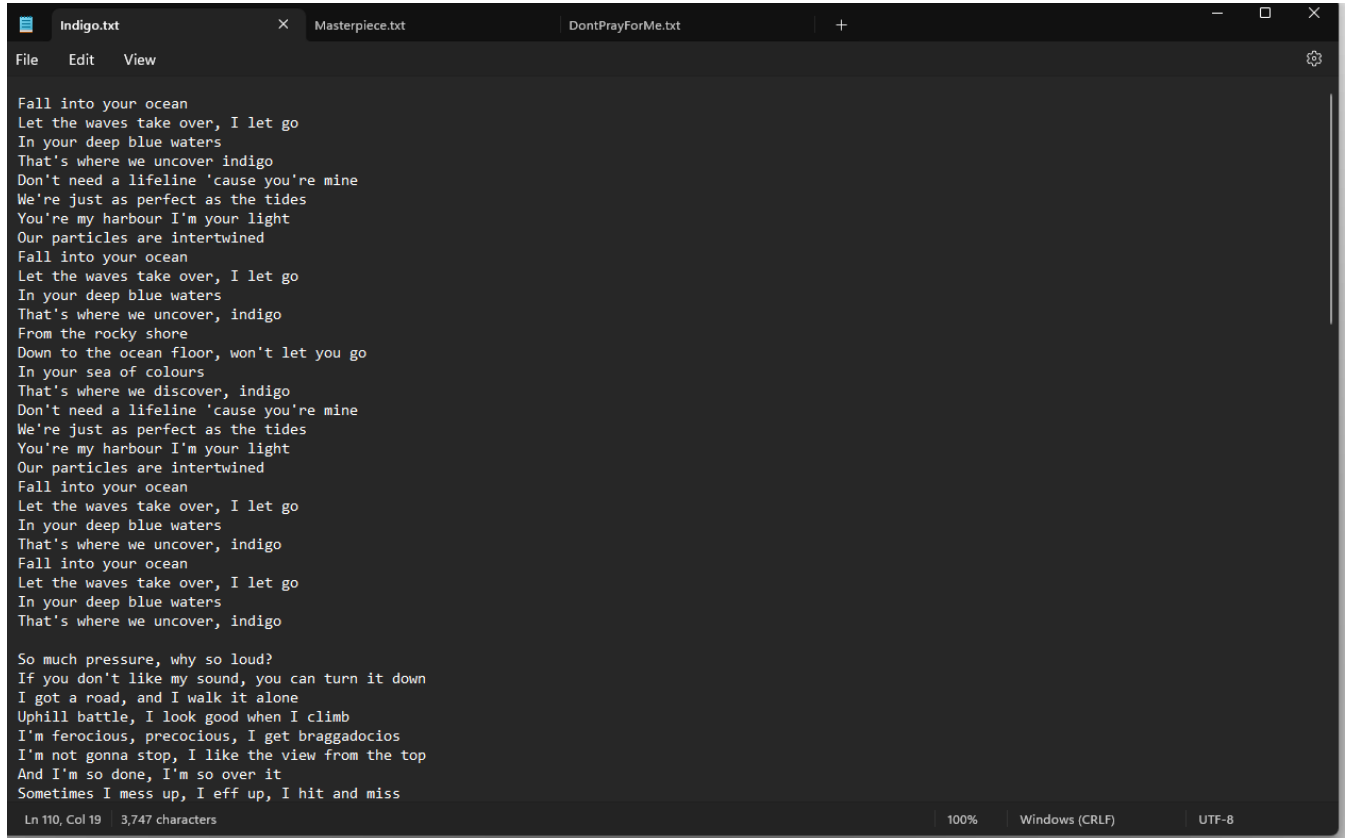


Algorithmic Art – Markov Chain

1) Text file(s)



The screenshot shows a text editor window with three tabs: 'Indigo.txt', 'Masterpiece.txt', and 'DontPrayForMe.txt'. The 'Indigo.txt' tab is active, displaying a text file generated by a Markov chain. The text is a mix of lyrics from the song 'Indigo' by The Lumineers and a generic paragraph. The text is as follows:

```
Fall into your ocean
Let the waves take over, I let go
In your deep blue waters
That's where we uncover indigo
Don't need a lifeline 'cause you're mine
We're just as perfect as the tides
You're my harbour I'm your light
Our particles are intertwined
Fall into your ocean
Let the waves take over, I let go
In your deep blue waters
That's where we uncover, indigo
From the rocky shore
Down to the ocean floor, won't let you go
In your sea of colours
That's where we discover, indigo
Don't need a lifeline 'cause you're mine
We're just as perfect as the tides
You're my harbour I'm your light
Our particles are intertwined
Fall into your ocean
Let the waves take over, I let go
In your deep blue waters
That's where we uncover, indigo
Fall into your ocean
Let the waves take over, I let go
In your deep blue waters
That's where we uncover, indigo

So much pressure, why so loud?
If you don't like my sound, you can turn it down
I got a road, and I walk it alone
Uphill battle, I look good when I climb
I'm ferocious, precocious, I get braggadocios
I'm not gonna stop, I like the view from the top
And I'm so done, I'm so over it
Sometimes I mess up, I eff up, I hit and miss
```

The status bar at the bottom indicates 'Ln 110, Col 19' and '3,747 characters'. The window title bar shows '100%' zoom, 'Windows (CRLF)' encoding, and 'UTF-8' file format.

2) Chain

```
JS sketchjs X
Markov Chain > JS sketchjs > ...
1  let ewl = {}; // Erst-Wort-Liste
2  let generatedTexts = []; // Array für mehrere generierte Texte zu speichern
3
4  function preload() {
5    bigText = loadStrings('Indigo.txt');
6    newFont = loadFont('Yozakura.otf');
7  }
8
9  function setup() {
10   createCanvas(900, 550);
11   analyzeText();
12   generateMultipleTexts(10);
13 }
14
15 function analyzeText() {
16   // Iteriere durch jede Zeile des Texts
17   for (let i = 0; i < bigText.length; i++) {
18     let line = bigText[i];
19     let words = line.split(/\s+/);
20     // Iteriere durch jedes Wort in der Zeile
21     for (let j = 0; j < words.length - 1; j++) {
22       let word = words[j];
23       let nextWord = words[j + 1];
24       // Wenn das Wort noch nicht in der Erst-Wort-Liste ist, füge es hinzu
25       if (!ewl[word]) {
26         ewl[word] = [];
27       }
28       // Füge das nächste Wort zur NWL des aktuellen Wortes hinzu
29       ewl[word].push(nextWord);
30     }
31   }
32 }
33
34 function generateText() {
35   // Wähle ein zufälliges Wort aus der Erst-Wort-Liste
36   let currentWord = random(Object.keys(ewl));
37   let generatedText = currentWord;
38 }
```

```
JS sketchjs X
Markov Chain > JS sketchjs > analyzeText
34 function generateText() {
38
39   // Generiere einen Satz mit maximal 15 Wörtern
40   for (let i = 0; i < 10; i++) {
41     if (ewl[currentWord]) {
42       let nextWord = random(ewl[currentWord]);
43       generatedText += ' ' + nextWord;
44       currentWord = nextWord;
45     } else {
46       break; // Wenn es kein nächstes Wort gibt, breche ab
47     }
48   }
49
50   return generatedText;
51 }
52
53 // Generiere eine bestimmte Anzahl von Texten und speichere sie im Array
54 function generateMultipleTexts(numTexts) {
55   for (let i = 0; i < numTexts; i++) {
56     generatedTexts.push(generateText());
57   }
58 }
59
60 function draw() {
61   background('black');
62   fill('#d6cadd');
63   textSize(35);
64   textFont('Yozakura');
65   textAlign(CENTER, TOP);
66   let yPos = 50;
67   let lineSpacing = 45;
68   for (let i = 0; i < generatedTexts.length; i++) {
69     text(generatedTexts[i], width/2, yPos); // Text horizontal zentriert
70     yPos += lineSpacing; // Erhöht die y-Position für die nächste Zeile
71   }
72 }
73
```

3) Example Texts

PLEASE RAISE THEIR HANDS?
GO WITH THE VIEW FROM THE DARK AND I CANNOT BREATHE
WE UNCOVER, INDI GO
COLOUR INSIDE THE VIEW FROM THE RIVER'S DRY AND OVER, I
DIE, PLEASE RAISE THEIR HANDS?
AM LIVING LIKE THE DARK AND OVER, I NEVER HAD A
THOSE WHO MATTER DON'T MIND DON'T CATCH WHAT I'M PERFECTLY INCOMPLETE
WANNA HANG WITH THIS
PARTICLES ARE INTERTWINED
BATTLE, I EFF UP, I STILL WORKING ON MY FACE SOMETIMES

I, I LET GO
PERFECTLY INCOMPLETE
WHERE IT HURTS
IT HURTS
THAT SWORD OVER ME
DISCOVER, INDI GO
NEVER HAD A WAY TO GO, BUT IT'S WHERE IT HURTS
DOWN YOUR HEAD TO PRAY FOR ME
DON'T PRAY FOR ME!
IT'S WORTH THE WAIT