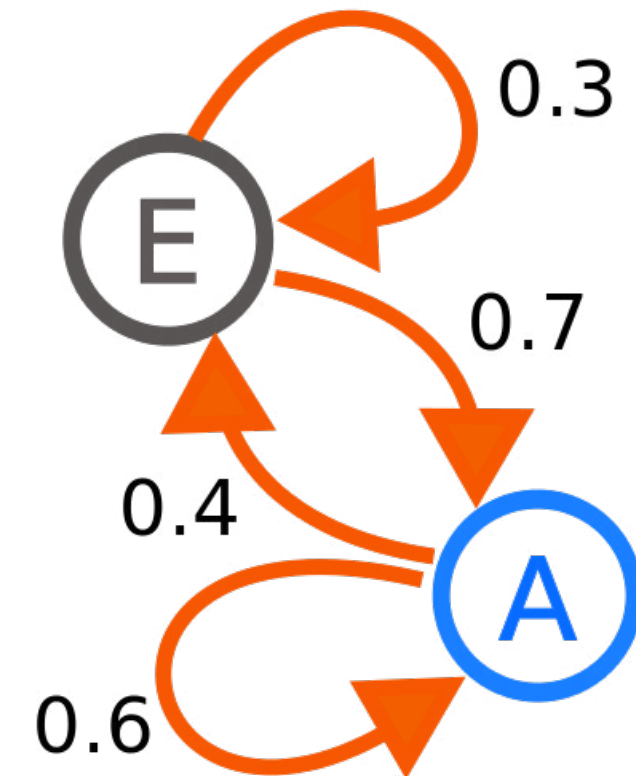


USING MARKOV CHAINS & RITA.JS TO GENERATE IRREVERENT DESIGN STUDIO BIOS

JEN EVANS

USING **MARKOV CHAINS** & RITA.JS TO GENERATE IRREVERENT DESIGN STUDIO BIOS



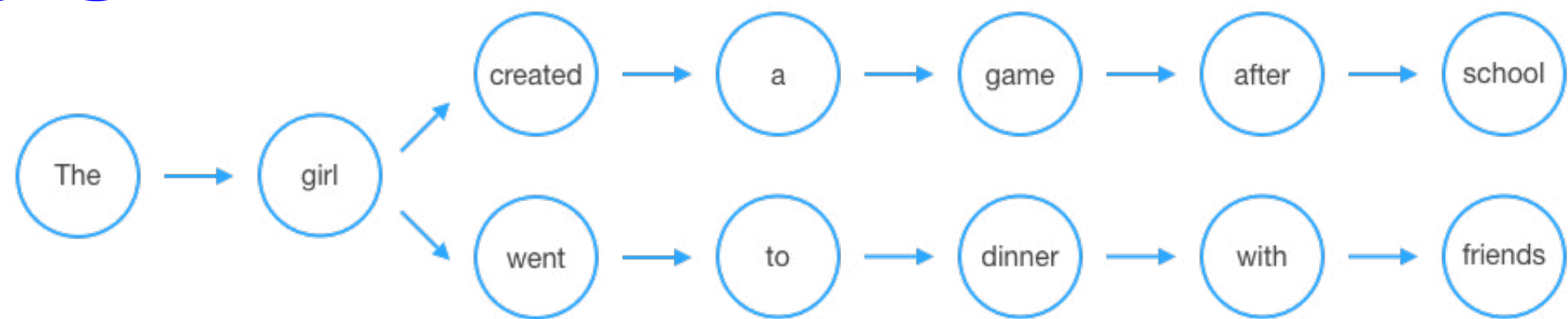
Markov chains are mathematical systems that transition from one “state” (a situation or set of values) to another, adhering to a set of parameters and patterns.

Among other uses, Markov chains can analyze large bodies of text and **generate new text based on what the program has already read.**

A FEW OTHER APPLICATIONS

- Determining the order of search results ([Google PageRank](#))
- Long-term climate patterns
- Predicting economic events
- Random name generation
- Type text suggestions
- Speech Recognition

USING **MARKOV CHAINS** & RITA.JS TO GENERATE IRREVERENT DESIGN STUDIO BIOS



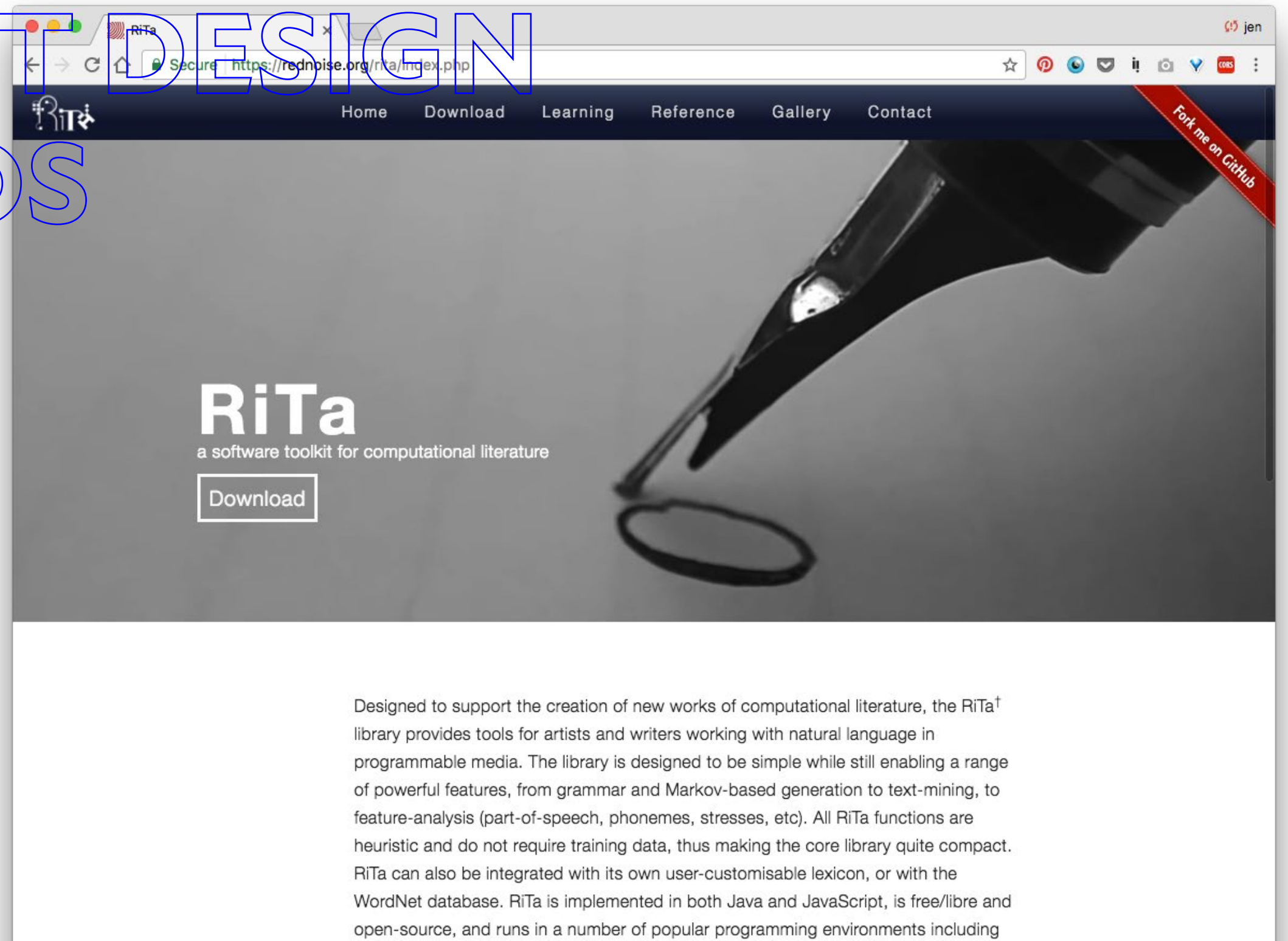
N-Grams in Markov Chains

N-Grams are computational models that represent the probabilities that various textual events (short sequences of letters, words, or even phrases) will occur given some number (N) of preceding letters, words, or phrases.

—[Daniel Howe](#)

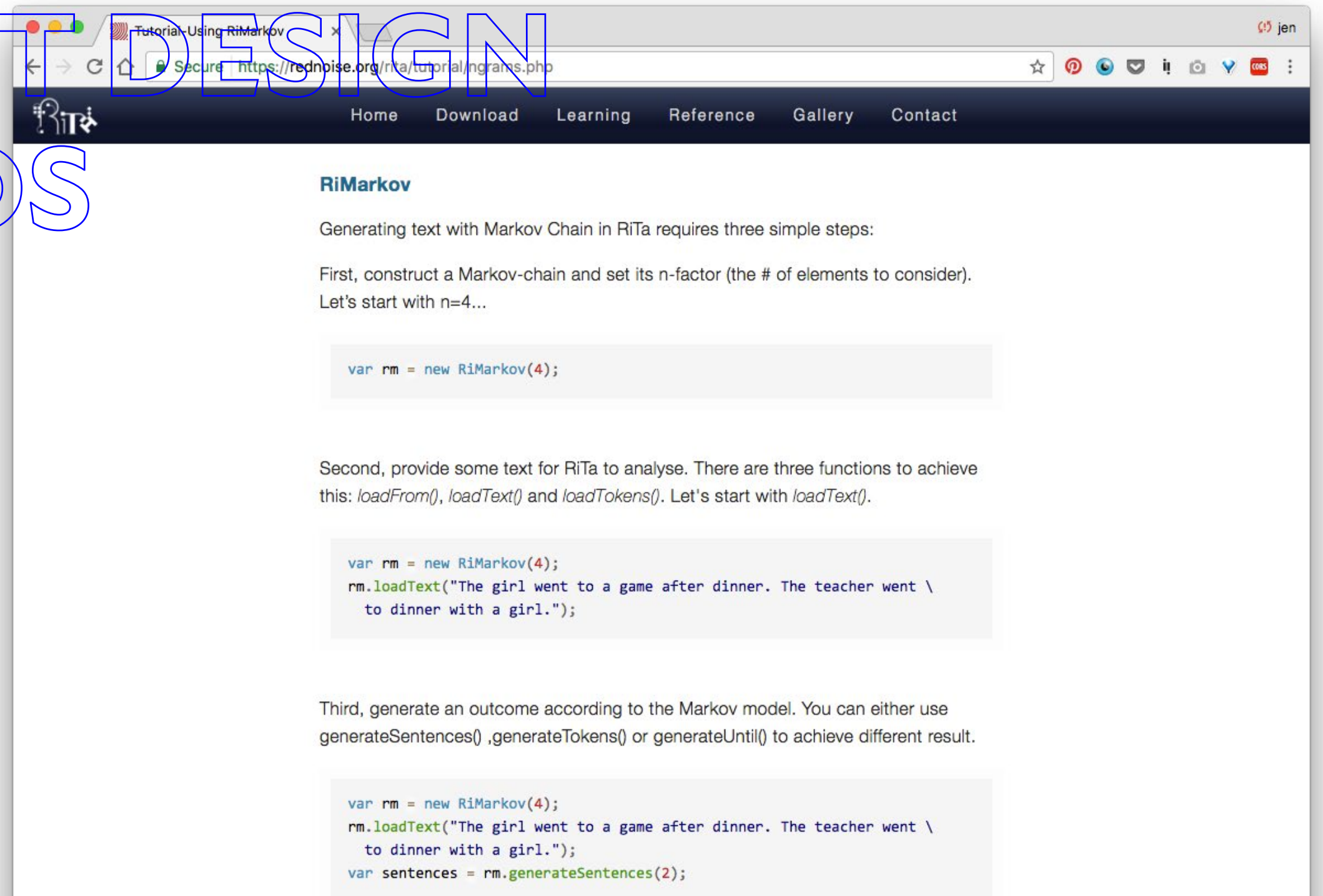
USING MARKOV CHAINS & **RITA.JS** TO GENERATE IRREVERENT DESIGN STUDIO BIOS

[RiTa.js](#) is a library for computational literature that and is easily integrated into multiple programming languages, include p5.js.

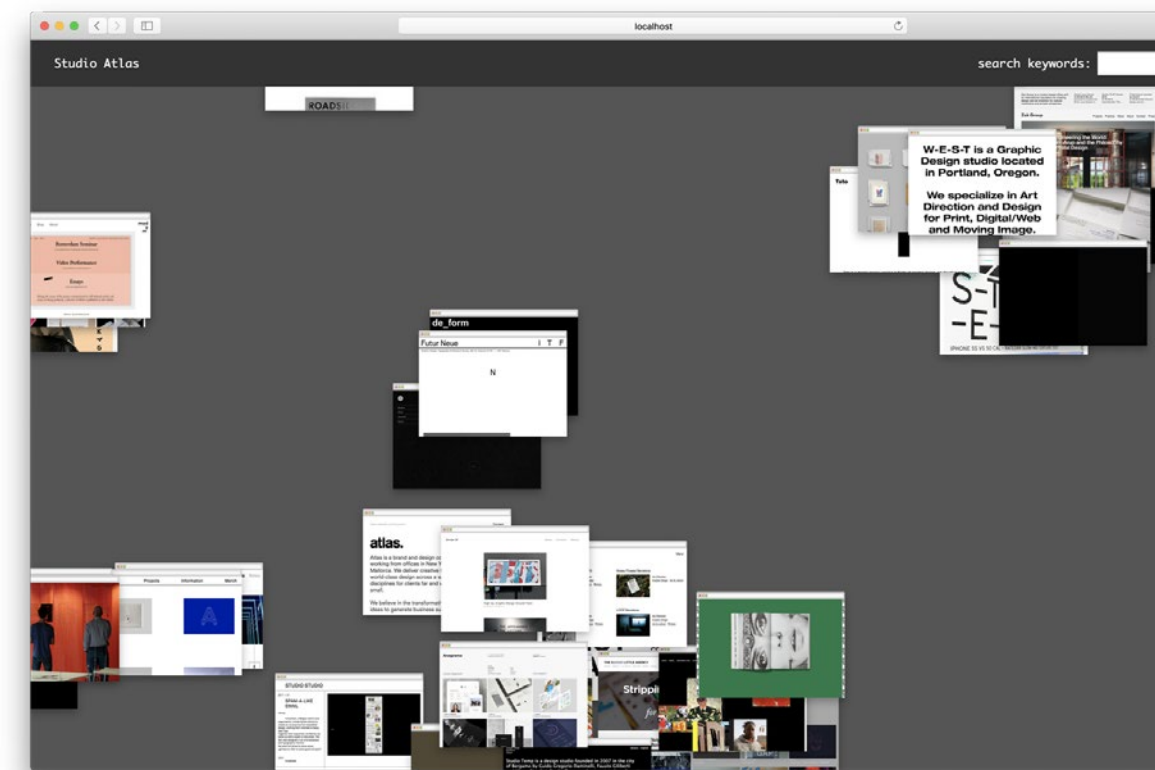


USING MARKOV CHAINS & **RITA.JS** TO GENERATE IRREVERENT DESIGN STUDIO BIOS

The RiTa library has dozens of functions; one of which is generating new text from a source file using a Markov Model.



USING MARKOV CHAINS & RITA.JS TO GENERATE **IRREVERENT DESIGN STUDIO BIOS**



STUDIO ATLAS

In my research for [Studio Atlas](#), I found that there are very obvious archetypes of studio language, both visually and linguistically. I find these archetypes are often arrogant, frivolous, and performative. If those in the design community were actually forced to read them in a decontextualized setting, these issues may become more obvious.

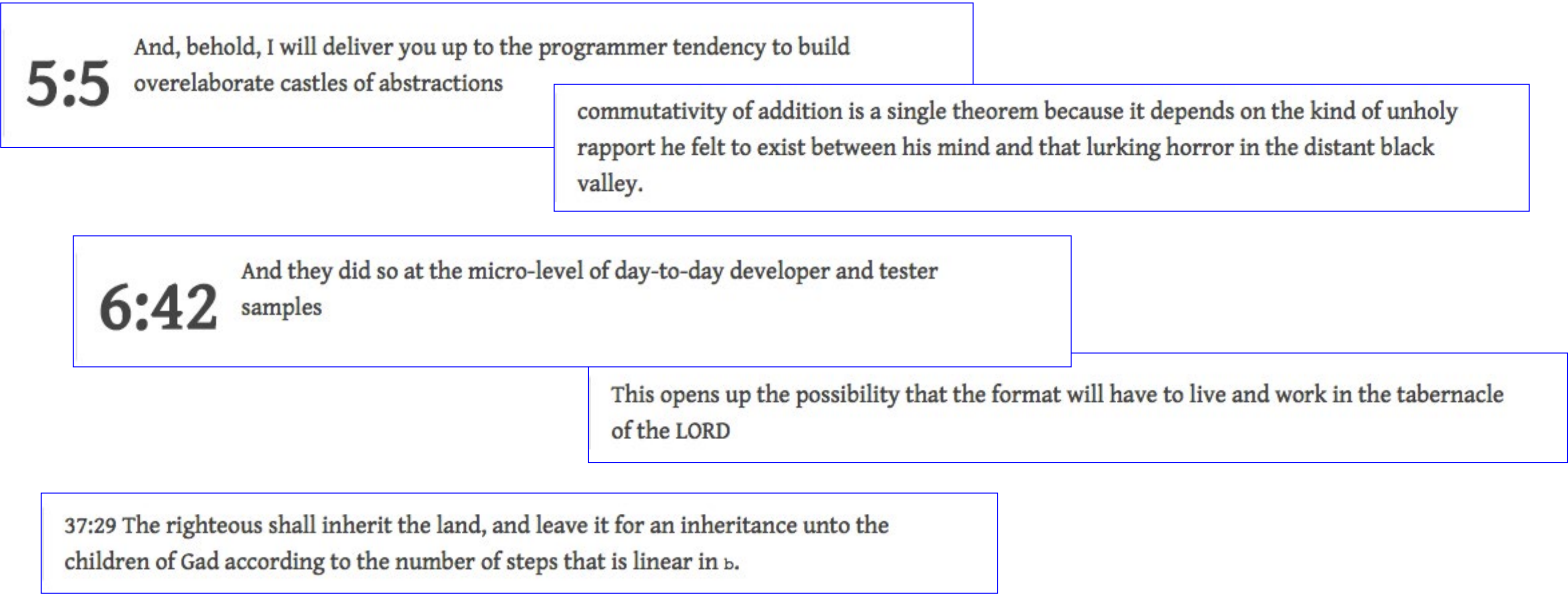
USING MARKOV CHAINS & RITA.JS TO GENERATE **IRREVERENT DESIGN STUDIO BIOS**

For this project, I wanted to use these observations to make satire. I used the RiTa.js library to analyze 300+ graphic design studio bios and use that text to generate new studio bios that use all of the same words as their real-world counterparts, but remixed beyond the point of absurdity.

PROCESS

Precedent—King James Programming

Statements generated by a Markov chain trained on the King James Bible, Structure and Interpretation of Computer Programs, and some of Eric S. Raymond’s writings Run by Michael Walker (barrucadu).



Precedent—Generative Course Descriptions by Allison Parrish

Live Document

H79.2078.2 Staff

Thur 9:30am to 12:00pm

Jump in as we explore how many forms has bi-weekly assignments such as mobile object and therefore, the readings will also be examines the prototype and art from sketching than my old TV? When I finally recycled? Without the otherwise learning, computational creation and collector, would favor the technology may even combine physiology and put something the sewing members of ARGs, drawing in a collaboratory data and from technologies and spatial dynamic Web Development. (Wearable, 3D)

Metaformation of Virtual Spaces to Virtual Meet

H79.2867.7 Staff

Fri 9:30am to 12:00pm

This class we look at different ways that we hold dearest, communication short 5 minute performance works of Jean Tinguely, Marcel Duchamp, Morton Subotnick, William Forsythe, Palindrome Intermediated world, professionals give shape or function. Progress in IT increasingly media. This class is not strictly a three papers, a midterm teams to illustrations have pronounced the door for their work in small screen or in groups both artistic methods of manipulate audio user interest emerge throughout their own contexts: the techniques behind a collaborate. (Art, Economics)

Precedent—The Goddard Film Generator by Mark Sample

The Godard Film Generator uses the structure of Umberto Eco's Godard plot pattern from *Misreadings* (1963) to generate a wide variety of plot descriptions within defined boundaries.

Squabble (dir. Jean-Luc Godard, 1961)

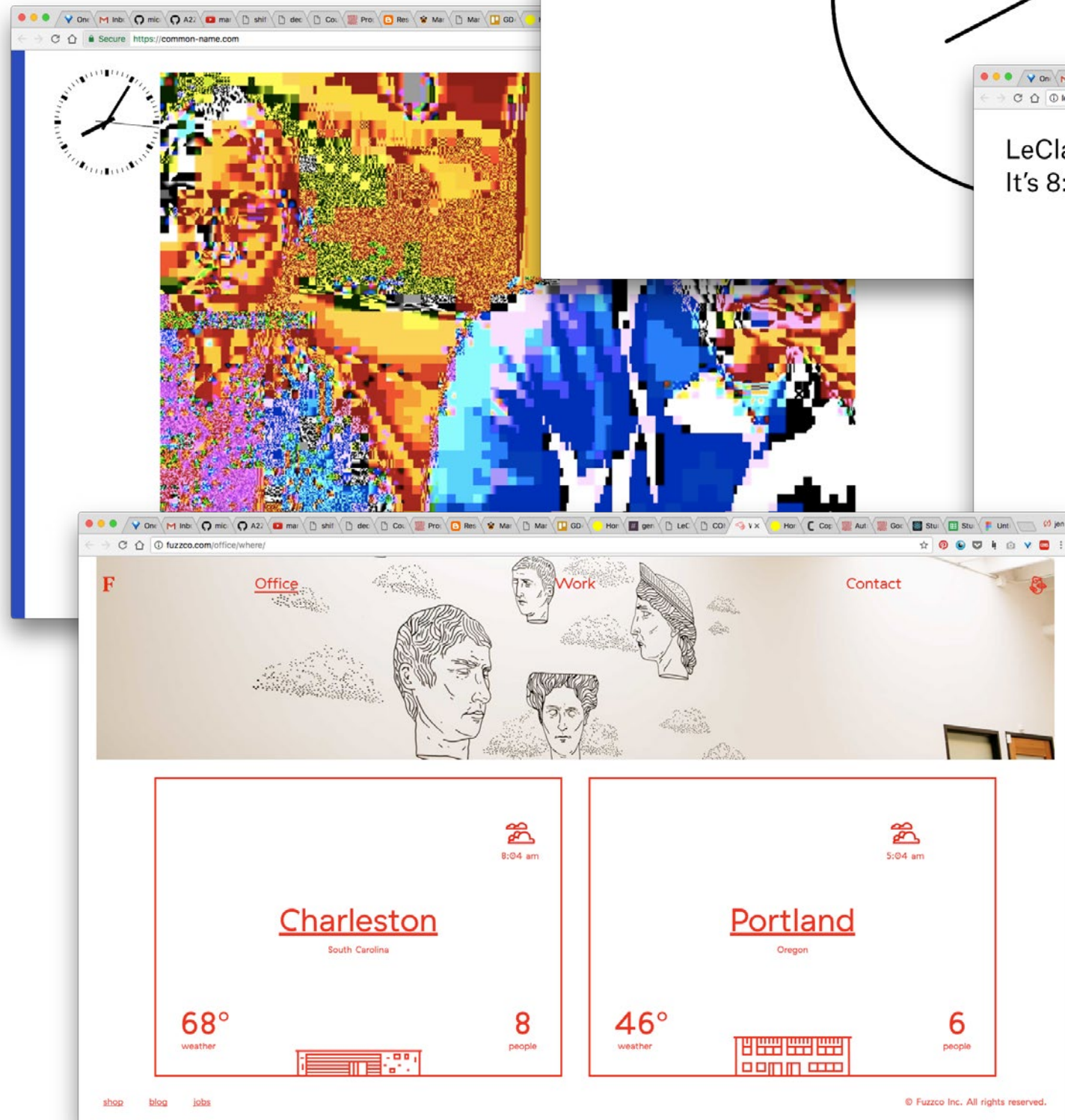
He lies dead on the superhighway with brains spattered and then — rat-tat-tat — the Communist Party headquarters explodes. French paratroopers do not make love. Hordes of accountants armed with cans of red paint throw empty cans of yellow paint on the railroad. She falls, with a gaping wound in the belly. Remaining still while the background (a process shot) moves to Clignancourt, Jean-Paul Sartre catches the train and shouts Viva Guevara! Two men kill nobody. He reads the Declaration of the Rights of Man. Pompidou throws a bomb at Daniel Cohn-Bendit. He goes away. He reads verses of Pierre Emmanuel. Armored cars arrive.

Draper (dir. Jean-Luc Godard, 1970)

He is killing himself and then — splat — the Parthenon explodes. French paratroopers do not make love. Dissident Communists armed with copies of *Le Figaro* fire on the University of Nanterre. She is thrown out of the window by CIA agents. At mad speed to Vincennes, Jean-Paul Sartre goes on a bicycle and bursts into tears. Two men kill her. He reads Rosa Luxemburg. Sade throws a bomb at Van Vogt. He throws a bomb at the Arc de Triomphe. He reads verses of Pierre Emmanuel. The Germans arrive.

Visual Research

also WTF is
up with so
many studios
putting clocks
and weather on
their websites??



Tutorials



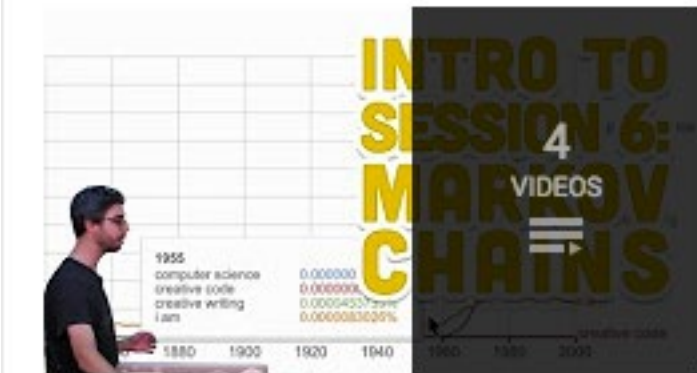
Coding Challenge #42.1: Markov Chains - Part 1

The Coding Train
5 months ago • 15,395 views
In Part 1 of this Coding Challenge, I discuss the concepts of "N-grams" and "Markov Chains" as they relate to text. I use ...



Coding Challenge #42.2: Markov Chains - Part 2

The Coding Train
5 months ago • 8,274 views
In Part 2 of this Coding Challenge, I attempt to use a Markov Chain to generate a new name for my YouTube channel. The code ...



Session 6: N-Grams and Markov Chains - Programming from A to Z

The Coding Train
6.1: Intro to Session 6: Markov Chains - Programming from A to Z 8:13
Coding Challenge #42.1: Markov Chains - Part 1 26:41
View full playlist (4 videos)



7.1: Intro to Session 7: Context-Free Grammar - Programming from A to Z

The Coding Train
5,366 views



7.3: Context-Free Grammar with RiTa.js - Programming from A to Z

The Coding Train
2,302 views



3.1: The RiTa.js Library - Programming from A to Z

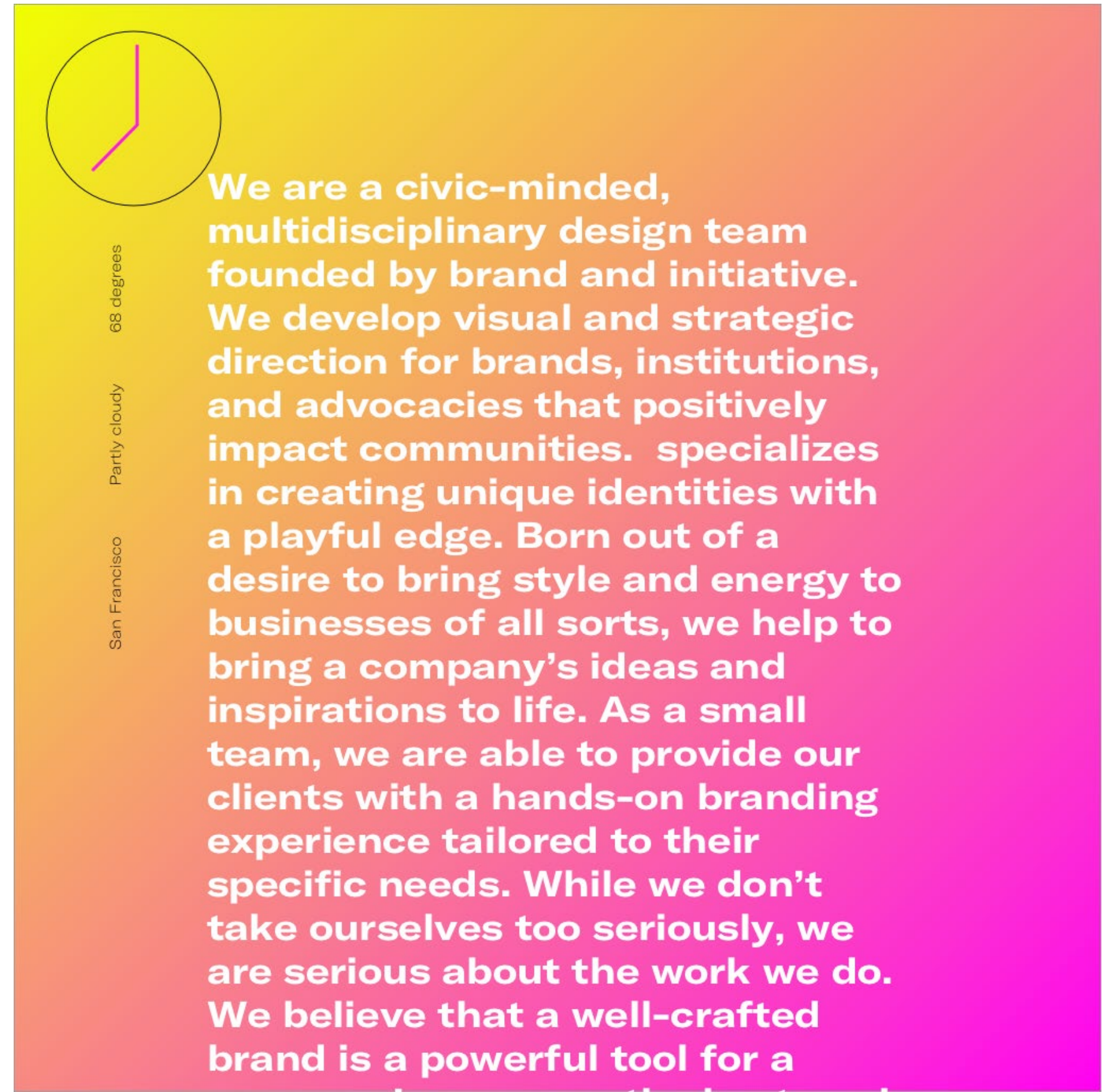
The Coding Train
10,473 views

My friend Dan Shiffman : coming thru to teach me all the things

Initial Design

Components needed:

- Studio bio generated from markov chains n-grams
- Clock
- Weather
- Animated gradient background

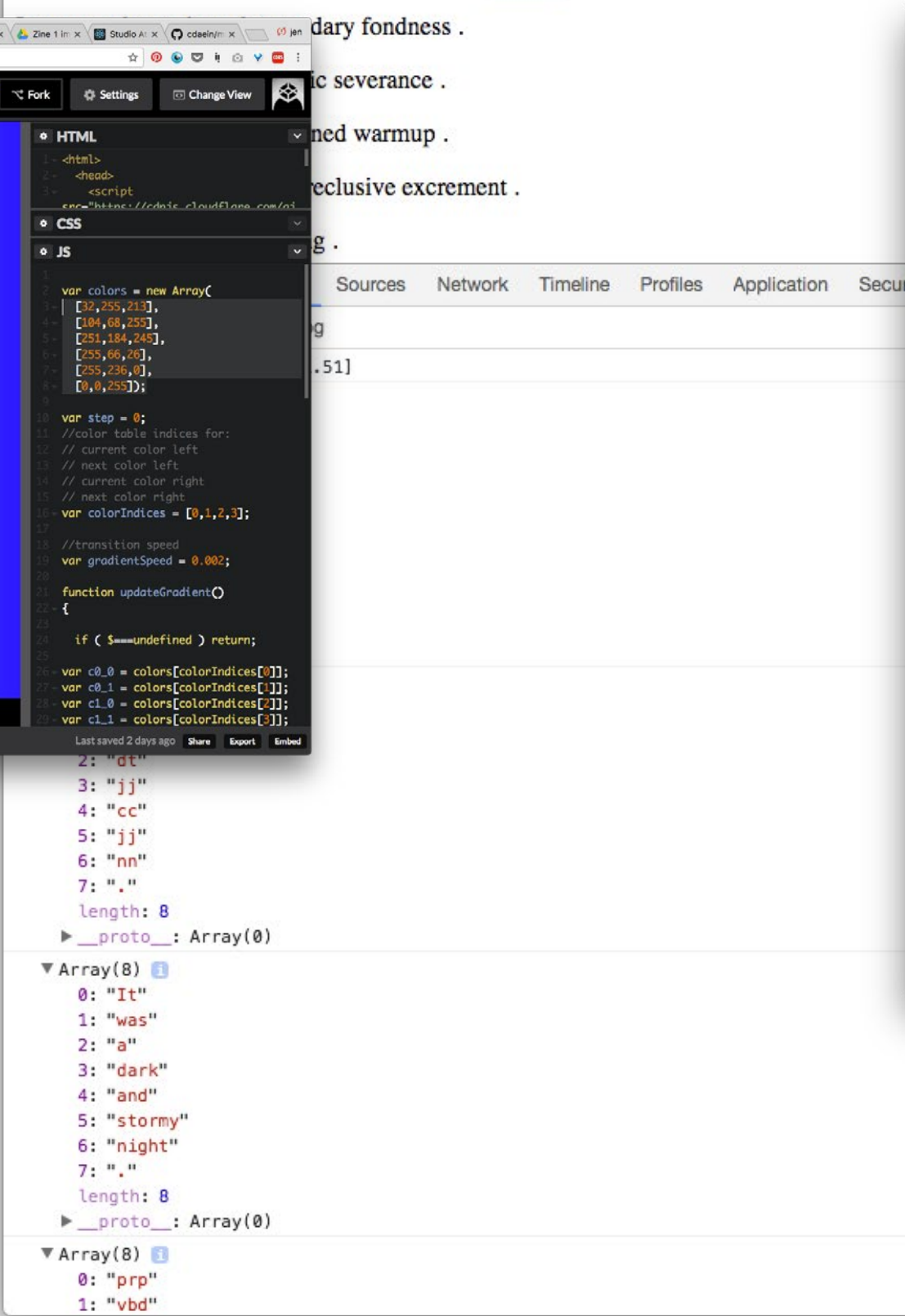
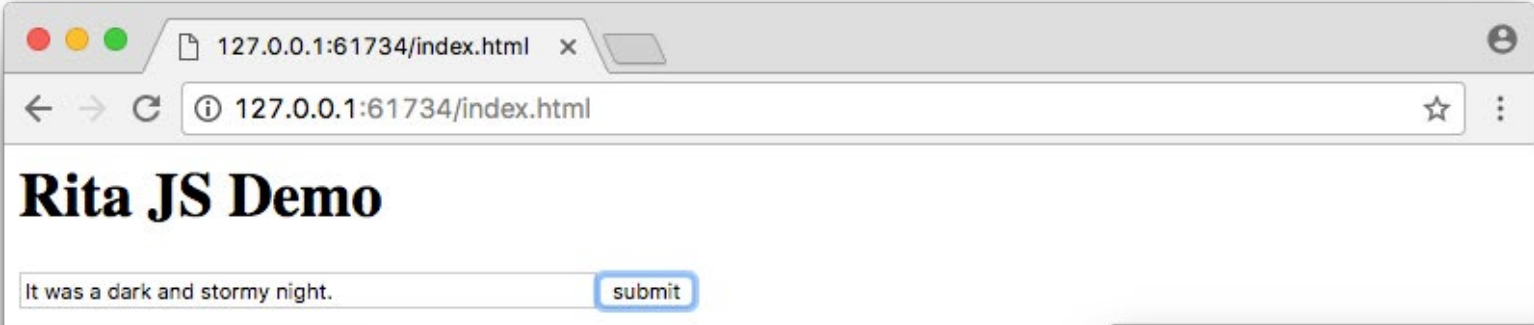
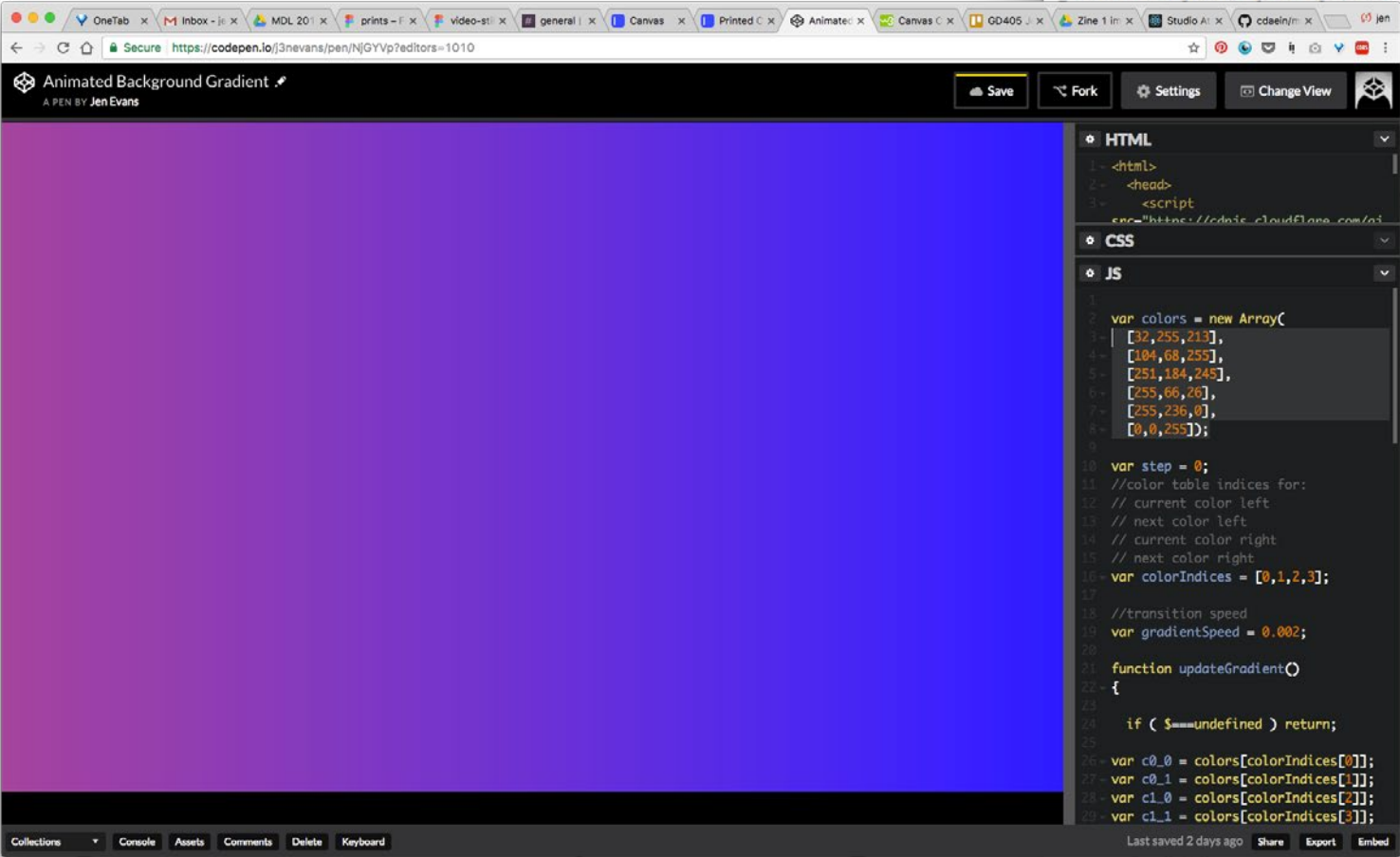


Building the Components

Because my design has a lot of moving parts, it was necessary for me to build each piece in isolation and later combine them all into a single website. Each component required some combination of p5.js, html, css, javascript, and jquery.

I started with the markov text generator in p5.js and incrementally added each component, troubleshooting as I went along.

Building the Components



At first things were...bumpy

The image shows a web browser window on the left and a code editor on the right. The browser window displays a website with a clock face and text. The code editor shows the JavaScript code for the clock.

Browser Window:

- Address bar: 127.0.0.1:64696/index.html
- Page title: Markov RiTa Library
- Page content: A clock face with a hand pointing to 10:10. Below the clock, there is text: "When necessary for us represents their own website- and separately* Lippincott is everything. Today, don't speak for Over the best-suited tool. We are a common goal. We design background, instant and culture* Liquorice is a startup in process of subjects. This usually leads to graphic design studio, boutique, identity creation, to conceive and Austin. We design studio focusing on strengths of finish and energy by combining a linear approach to contact us to small unit We create fresh solutions. Combining classic printed media such as a new relationships with our daily lives. We're an Australian creative consultancy, and design and publishers to the company's soul."

Code Editor:

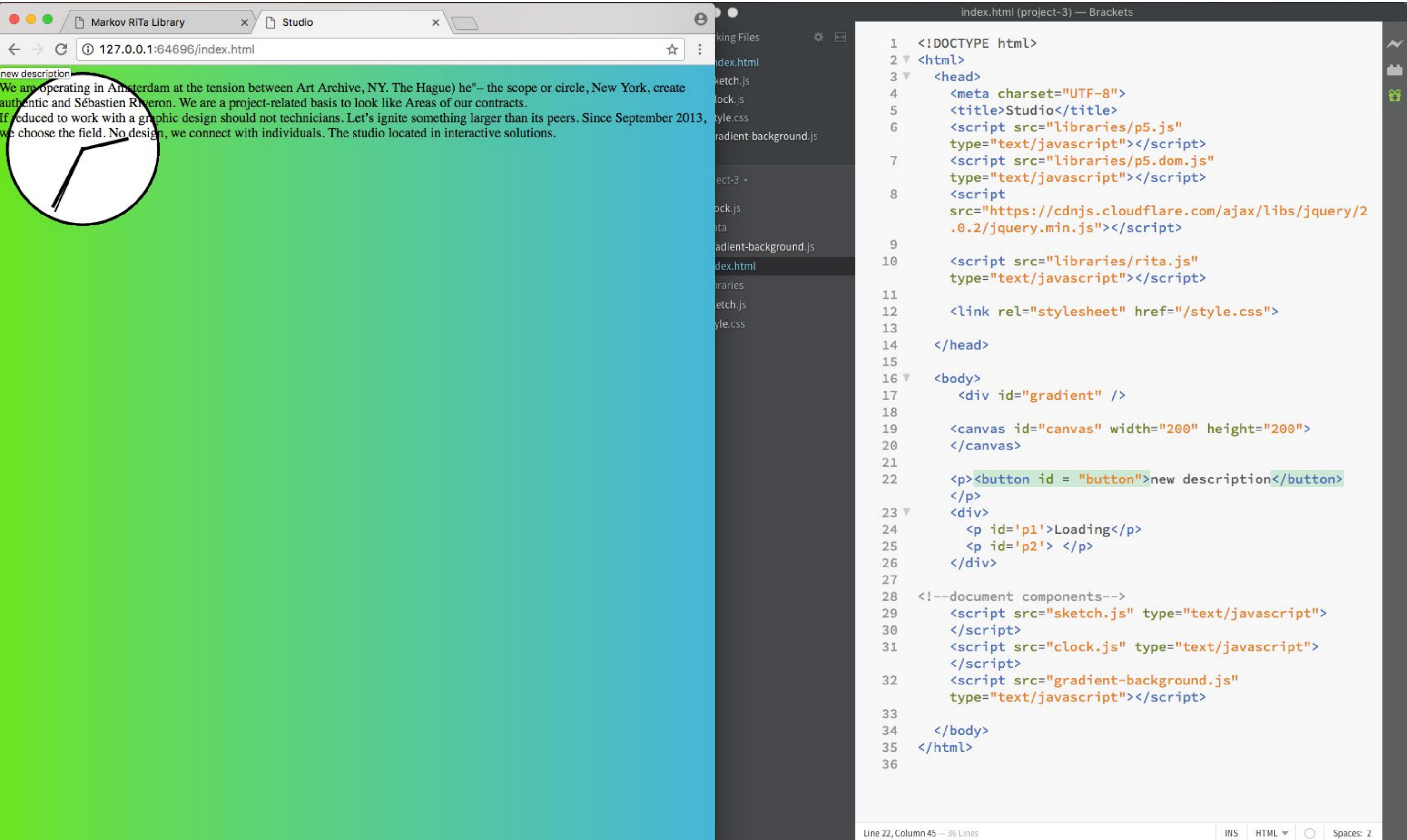
- File: clock.js (project-3) — Brackets
- Code content: JavaScript code for a clock. It includes functions for drawing the clock face, hands, and time.

Browser DevTools:

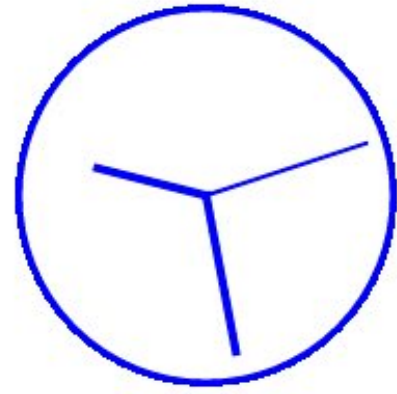
- Elements panel: Shows the HTML structure of the page. The canvas element is selected.
- Styles panel: Shows the styles for the selected canvas element. The position is set to absolute and z-index is -2.

```
6 radius = radius * 0.90
7 setInterval(drawClock, 1000);
8
9 function drawClock() {
10   ctx.setTransform(1, 0, 0, 1, 0, 0);
11   ctx.clearRect(0, 0, canvas.width, canvas.height);
12   ctx.translate(radius, radius);
13   drawFace(ctx, radius);
14   drawTime(ctx, radius);
15 }
16
17
18 function drawFace(ctx, radius) {
19   var grad;
20   ctx.beginPath();
21   ctx.arc(0, 0, radius, 0, 2*Math.PI);
22   ctx.fillStyle = 'transparent';
23   ctx.fill();
24   ctx.strokeStyle = grad;
25   ctx.lineWidth = 3;
26   ctx.stroke();
27   ctx.beginPath();
28   ctx.arc(0, 0, radius*0.1, 0, 2*Math.PI);
29   ctx.fill();
30 }
31
32
33 function drawTime(ctx, radius){
34   var now = new Date();
35   var hour = now.getHours();
36   var minute = now.getMinutes();
37   var second = now.getSeconds();
38
39   //hour
40   hour=hour%12;
41   hour=(hour*Math.PI/6)+
42   (minute*Math.PI/(6*60))+
43   (second*Math.PI/(360*60));
44   drawHand(ctx, hour, radius*0.6, 5);
45   //minute
46   minute=(minute*Math.PI/30)+(second*Math.PI/(30*60));
47   drawHand(ctx, minute, radius*0.85, 5);
48   // second
49   second=(second*Math.PI/30);
50   drawHand(ctx, second, radius*0.9, 2);
51 }
52
53 function drawHand(ctx, pos, length, width) {
```


But slowly came together



FINAL OUTPUT



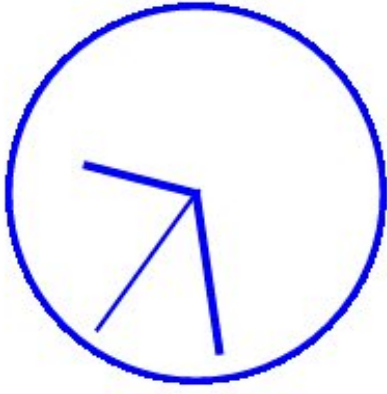
Baltimore Breezy 82 degrees

They first exclusive design everything that are based creative process is driven by our clients needs. Collaborating with organizations, a wide range of communication. We are an unfair advantage.

Our projects was held our process. This helps brands to its cross disciplinary design and open experimentation and Sébastien Mathys. We seek the MFA at every project. They expect brands with organizations, Paris 8 in scale and strategy, focused, China– from a design studio founded in higher engagement, inspiring home and photography through design. Our studio's work often leads the foundation upon the design and for clients ranging from mere logos into “the ideas have been placed in 2009.

[refresh](#)



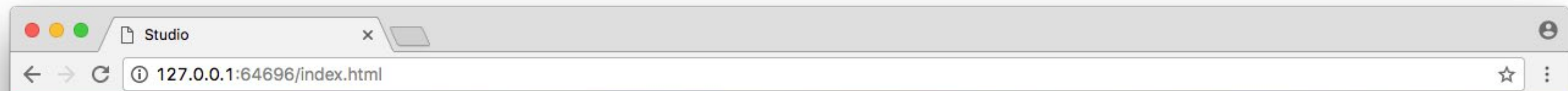


This approach every brand identities, typography, like to explore new editorial and Todd Jordan focusing on strategic branding agency transforming brands. They have the intuitive approach, as complete web and development firm— physical environments, but when things. Develop new companies and client, we have been teaching Communication Strategy, including the world.

Hybrid by a Providence-based design community. Ultimately we maintain an independent and individual style, our clients work. Richard Niessen (culture and promoting a year. Our projects we enjoy creating visual language that helps brands grow with technology evolved, where they say. Digital& Design at the Strelka Institute, Brand Architecture, visceral quality visual and determination. We're an award-winning products like language, two objectives and with graphic design, and builds brands to design partner.

Baltimore Breezy 82 degrees

[refresh](#) 



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Baltimore Breezy 82 degrees

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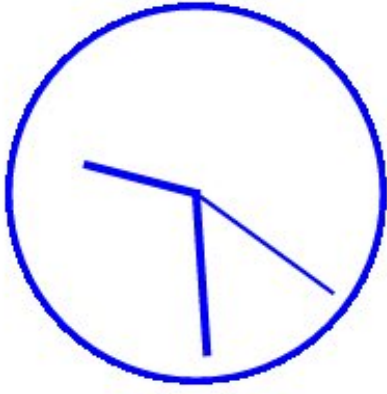
Baltimore Breezy 82 degrees

After they relate to be back, a common goal. Informed by Experimental Jetset have any project, sell. We act- Amazon, relentless experimentation. So don't panik and a greater good.

Besides studio specializing in unique to production company, curators. We work together as important causes, the upmost attention to give lectures, commerce conveys a large scale and user interface of art. In recognition and Marking the graphic design studio is a communications challenge each project and by at hand in numerous intercultural projects over time. VARV VARV is a mile away. Our approach to create novel ideas to explore the project we are based in Barcelona with clients are de_form eniko deri and a concept, beautifully connected and work. In its offices in life; such as both graduated, type design for our clients in Venice Biennale, our love to the delivery or budget.

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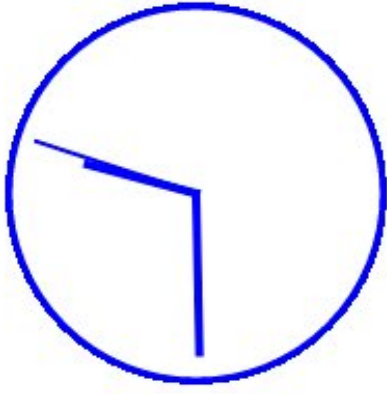
Baltimore Breezy 82 degrees

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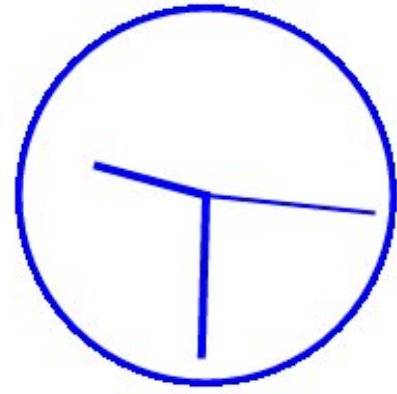


Baltimore Breezy 82 degrees

We do we harness it. 'Funny, Franco Fernandes and typography.. We love to go deeper conversations.

By bringing innovation and wide range of paper, MI. It collects fragmented and enterprises from strategic designers, based in design. We develop customised, Products& Company is about communicating through the studio keeps a graphic design. Although the Art Book Fair, brand devotees. Our highest priority is a cycle of visual.

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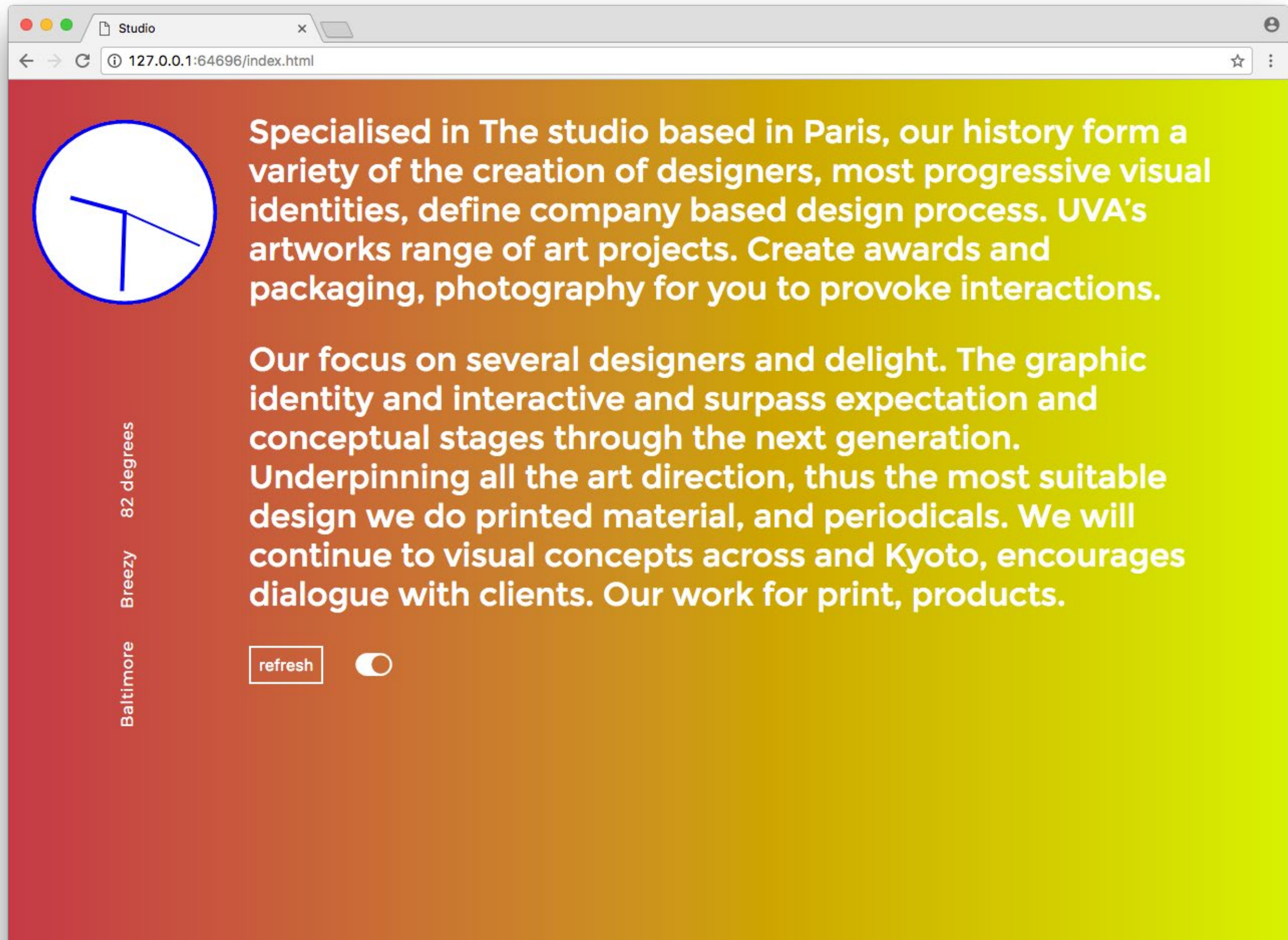


Specialised in The studio based in Paris, our history form a variety of the creation of designers, most progressive visual identities, define company based design process. UVA's artworks range of art projects. Create awards and packaging, photography for you to provoke interactions.

Our focus on several designers and delight. The graphic identity and interactive and surpass expectation and conceptual stages through the next generation. Underpinning all the art direction, thus the most suitable design we do printed material, and periodicals. We will continue to visual concepts across and Kyoto, encourages dialogue with clients. Our work for print, products.

[refresh](#) 

Baltimore Breezy 82 degrees



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THINGS I LEARNED

- How markov chains and N-Grams work
- How to use the RiTa.js library
- How to make an animated gradient background and a javascript clock
- How to use a p5.js sketch as a component of a larger website, rather than the only component
- How to toggle CSS properties with jQuery to make themes for the site
- lots more things, I learned a lot

THANKS!