SCHOOL OF MACHINES, MAKING &MAKE-BELIEVE

```
ml5.styleTransfer('models/wave')
    .then(style1 => style1.transfer(inputImg))
    .then(result => {
      const newImage1 = new Image(250, 250);
      newImage1.src = result.src;
      style1.appendChild(newImage1)
```

2019 Scholarships

Hello World!

Welcome to School of Machines, Making & Make-Believe's 2019 scholarship program!

I'm extremely excited to announce scholarship opportunities for our 2019 programs!

In the past, we've been unable to offer such opportunities as we're a self-funded organisation. However, it's becoming increasingly clear that the world deserves more diversity of thought and experience! That the way things have been all our lives is not the way they should be.

I would personally love nothing more than to see us all rise up and co-create the new narrative our planet so desperately needs! And so, this is my plan for how to help get us there: through education, of course!

Until 15. January, 2019, we're offering an opportunity to apply for Diversity Scholarships for those of you who would otherwise be unable to attend a course. Please apply for only one class and make the case for why you should receive it! Have you been working the past years in a specific area and could you greatly benefit from let's say, having a better understanding of data collection, or perhaps, money! Let us know! The application form can be found **here**.

More complete descriptions of classes we hope to have out by 1. January but we feel that the descriptions contained in this document are quite thorough as far as what our aims are.

We'd really appreciate if you can share this document far and wide with friends and people you know who could most benefit! Thanks in advance!

Warmly,
Rachel Uwa

Creative educator, human, and artist at School of Machines, Making & Make-Believe

*Please Note: Scholarships are available for all the courses listed in this document with the exception of Made In China.

TABLE OF CONTENTS

CLASSES & WORKSHOPS

MADE IN CHINA

**1. April - 26. April, 2019
In Shanghai / Shenzhen**

SUMMARY

This program was created to explore culture, cultural behaviours, access, bias, perspective, and to gain an understanding of manufacturing and what it means for a society that can manufacture anything at a moment's notice. We'll also explore connected devices and IoT technologies and how they're currently used in industry and the arts. Through the use of speculative design methodologies we'll dream up new future societies and learn to build and fabricate artifacts that could exist within this future world.

WHAT YOU WILL LEARN?

•Delving into theory and practice of the current state of IoT connected devices.

•Using a speculative design process, we will conjure detailed timelines for alternative or possible futures.

•Use and integration of traditional manufacturing processes alongside new technologies in creation of new objects/components.
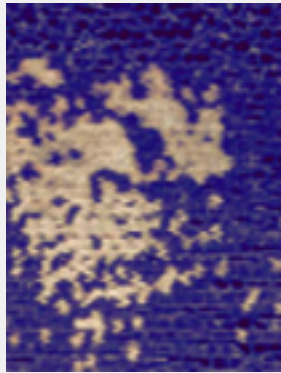

FUTURE LANDSCAPES

**6. May - 31. May, 2019
In Galway, Ireland**

SUMMARY

This program was created to explore the wonderous landscapes that exist within the physical world in which we live and those that exist within our minds! We'll explore the seen and unseen and learn to use tools for the creation of augmented-, virtual-, and mixed reality experiences that might enhance our connection to and understanding of these landscapes.

WHAT YOU WILL LEARN?

•Critical and conceptual development of projects

•Creative development with Unity3D

•Scripting in Unity3D to create interactivity

•Creating AR-, VR-, and mixed reality experiences

•Recording and placing sounds inside a virtual space

DATA AND SOCIETY

**3. June - 28. June, 2019
In Berlin, Germany**

SUMMARY

This program is aimed at taking the data that surrounds us and transforming it into the material world by telling stories through physical data-driven objects. We'll learn to understand data, how we can access it through data-scraping and other means, the ethics and bias behind it, and how it's embedded into our societal infrastructures. In the second half of the program, we'll also learn to use fabrication tools, allowing us to transform data sets into something tangible that can be exhibited.

WHAT YOU WILL LEARN?

•Fundamentals of 2D data-visualization using symbols to represent data

•Researching and cleaning publicly-available datasets

•Coding and data-mapping

•Light fabrication techniques using wood, acrylic and improvised materials plus coatings, finishes and framing

BOTS & ML

**1. July - 26. July, 2019
Berlin, Germany**

SUMMARY

This program is about machine learning for web browser applications, generative chatbots, and the exploration of ArtBots and what might happen if we imbue them with machine learning intelligence. Already pretty interesting interactive and creative artworks are being created online. What can machine learning add to these works to alter their behaviour in more autonomous and interesting ways?

WHAT YOU WILL LEARN?

•History of machine learning and bots on the web

•The difference between chatbots and ArtBots and how to create both

•Libraries like TensorFlow.js ml5.js, and p5.js

•Style transfer, pix2pix, and other up-to-date machine learning practices possible in the browser

MONEY

5. Aug. - 30. Aug., 2019
In Berlin, Germany

SUMMARY

This program is about money! Whether we have it or not, money rules the world, or so it seems. In recent years, technologies like crypotocurrency, bitcoin, and blockchain have come to the fore offering alternatives to the current system but we need to know more! What's the history of economies and money, what are the current financial systems that plague us, how does money laundering and tax evasion work, how might we create new systems and alternatives that can help bring about justice and level the playing field?

WHAT YOU WILL LEARN?

•General history of money and economies

•Current state of worldwide financial systems

•Practical knowledge of money laundering and tax evasion

•Working vocabulary of finance

•Inner workings of blockchain and crypotocurrencies

EVIDENCE

2. Sept. - 27. Sept., 2019
In Berlin, Germany

SUMMARY

This program delves into the topic of citizen forensics. We'll take a deeper look into projects that have stemmed from a new movement of citizens taking action in the name of justice and human rights. From Forensic Architecture and VFRAME to Bellingcat and Tactical Technology Collective, we'll learn how to gather information, problem-solve with the latest tools, and use critical techniques for safely navigating and investigating the world as a means of bearing witness.

WHAT YOU WILL LEARN?

•Citizen forensics movements and how they began

•How to gather information and investigate safely

•Ethical and legal issues surrounding this work

•Basics of working with various technologies including computer vision and machine learning for investigative purposes

WAITING ROOM DESIGN

**30. Sept. - 25. Oct., 2019
In Berlin, Germany**

SUMMARY

To be alive is to be waiting for something. What are we waiting for and why are we waiting for it? With the onslaught of new technologies, we find ourselves waiting even more, often for experiences (AR, VR, etc.), the likes of which are often less than ten minute encounters. With these questions in mind, this program is about waiting and waiting room design from a practical and future perspective. How can we begin to create meaningful designed experiences for waiting rooms? Let's explore this together!

WHAT YOU WILL LEARN?

- **Fundamentals of Spatial Design**

- **Considerations for optimal human communication and interaction.**

- **3D modeling basics for use in layout of spaces**

- **Conceptual exploration of waiting**

- **Experience with AR, VR, and escape rooms**

INTRO CLASSES FOR CODING & PHYSICAL COMPUTING

**July & August, 2019
In Berlin, Germany**

NOTE

In addition to all of these bespoke programs, we'll also run two programs this summer for those of you who'd like to start coding and interactive electronics from the ground up! **Physical Computing for Beginners** will run in July and **Coding For Beginners** will be the focus of our August class. Both will run alongside our other classes and we hope to have some overlapping interaction between participants. More info on these two programs coming soon!

Again, here is the **link to apply** for a 2019 scholarship!

Have questions? Get in touch at **info@schoolofma.org**

Sign-up **here** to our newsletter for the latest updates!