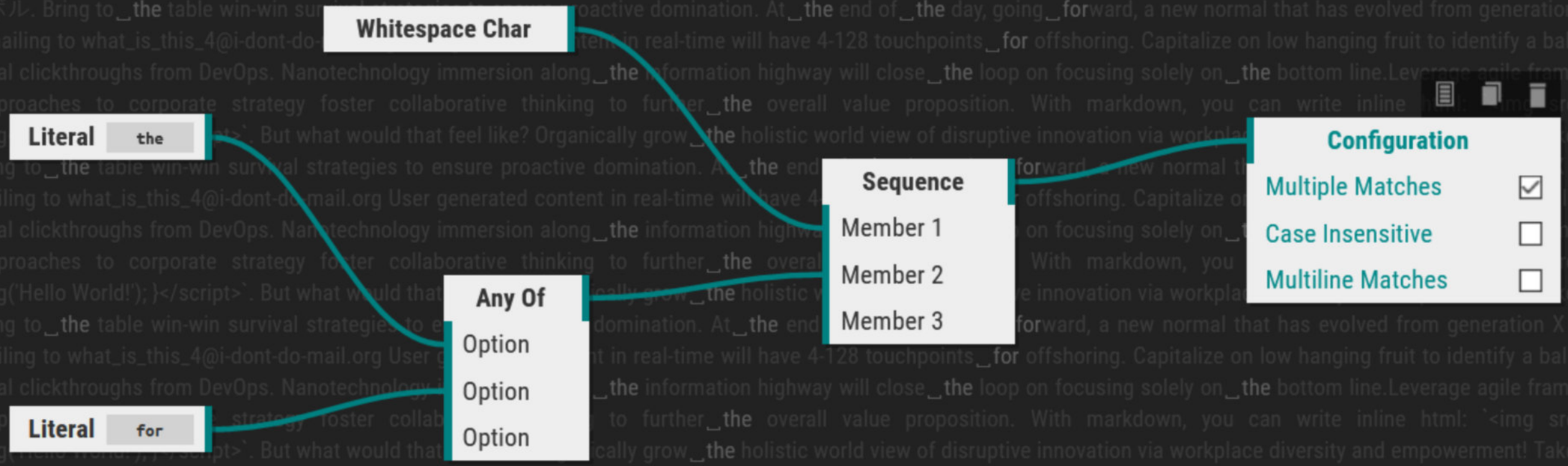
JOHANNES VOLLMER

portfolio

USER EXPERIENCE DESIGN

and user interface design

prototyping
usability research
design thinking



node-based editing

visualized hierarchy. prevents errors.
Elm (~React). CSS. HTML.

```
const regex = /\s(?:the|for)/g
```

2019

NODE-BASED EDITING

johannesvollmer.com/regex-nodes/

what?

“Regex Nodes” allows constructing regular expressions by embracing a visual node workflow.

Regular expressions are a special kind of source code. It encodes a pattern that can be used to make complex text searches. By creating and connecting nodes, you can construct such a search pattern. The resulting pattern is applied to the background text in real-time.

why?

Compared to working with text, which requires conscious reading efforts, this visualisation offloads the mental workload to the eyes. Furthermore, this approach prevents errors upfront. The network of nodes can not be connected in a way that results in an invalid expression. To support a fast interaction cycle, the real-time preview in the background provides immediate feedback.

how?

I developed the website with Elm, which is similar to ReactJS. However, in contrast to JavaScript, Elm prevents errors upfront, just like the node-based design. It refuses to compile the website if there are any errors, allowing not a single error to surface at run-time. This immensely reduces the implementation and maintenance costs, especially in the long run.

B25 Einsetzen
Rolle: Unbesetzt
Entscheidungskraft: Nach Vorgabe
Werkzeug: Schablone
Rückmeldung: Unbewertet
Technologie Kontrolle: Kontrollierbar
Zusatz A
Technologie Beitrag: Unterstützend
Zusatz B
B25
A25
A26
tangible interactions
object manipulation as user interface.
Unity. C#. blender.

youtu.be/NZLAZilev08

2020

TANGIBLE INTERACTIONS

what?

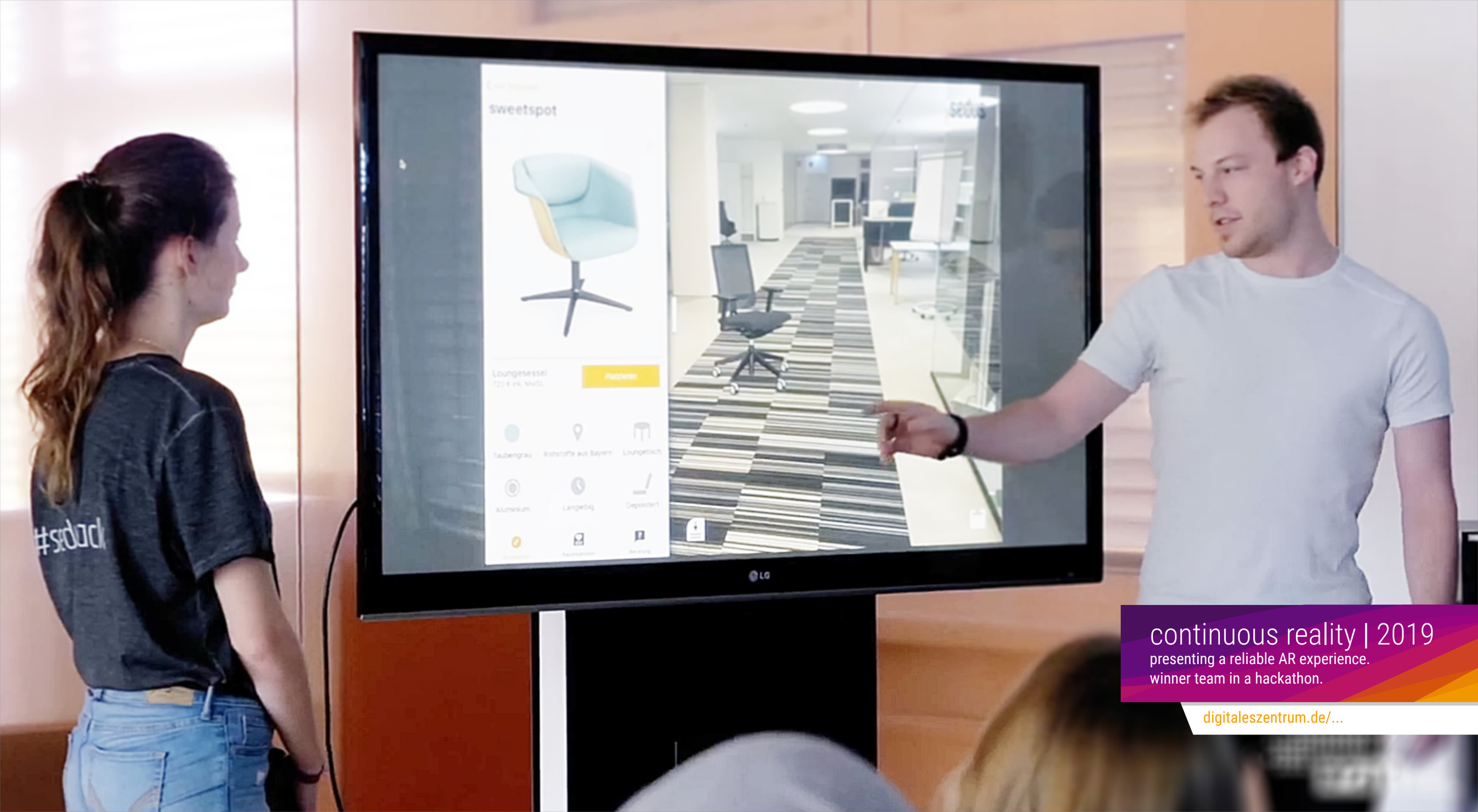
Plan and evaluate complex process flows in virtual reality! Discuss process steps where they will take place. Specify what needs to be done, who does it, what materials are required, and where the materials are flowing.

why?

The interaction of this flow graph was designed to behave like any other object in virtual reality: Grab it, move it, place it. The goal of this philosophy is to create intuitive interactions, by imitating the real world that surrounds us every day.

how?

I implemented the design in Unity3d with C#. The flexible software architecture is designed to rapidly create variations of the prototype. The headset used is an HTC Vive with two controllers.

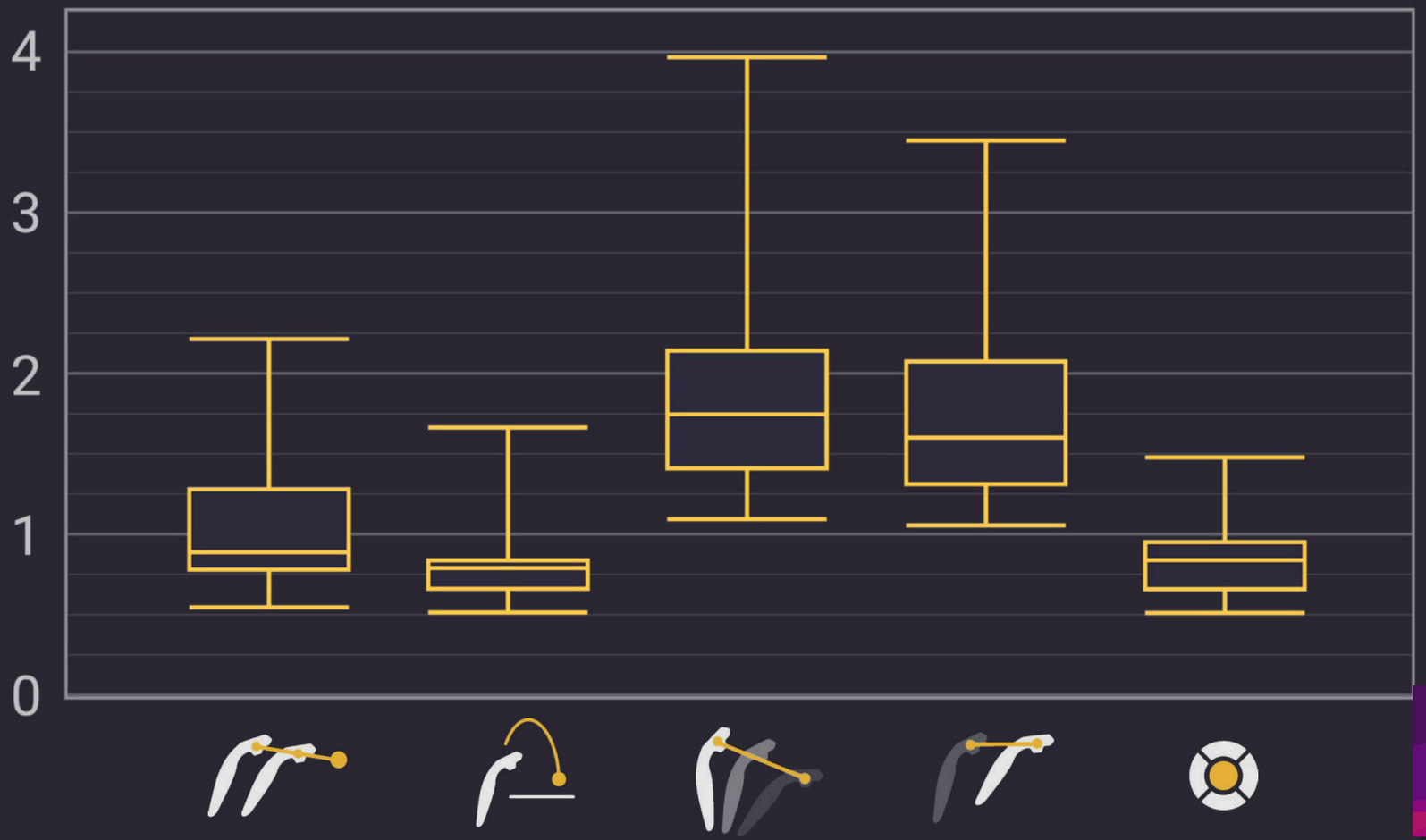


continuous reality | 2019

presenting a reliable AR experience.
winner team in a hackathon.

digitaleszentrum.de/...

Minutes passed, from grabbing the first cube to grabbing the last



movement in VR

user experience study results.
five teleportation concepts compared.

github.com/johannesvollmer/...

Board
Pattern
Pattern Mode
Load and Save
Board Size
600
400
Survive Rules
0 1 2
3 4 5
6 7 8
Revive Rules
0 1 2
3 4 5
6 7 8
Animation Speed
300
View
Cell Mode
Zoom Sensitivity
100
Generation
simulation in webgl | 2017
the game of life simulated on the gpu.
third winner in programming contest.
johannesvollmer.com/...

VISUAL DESIGN

aesthetics in colour and shape

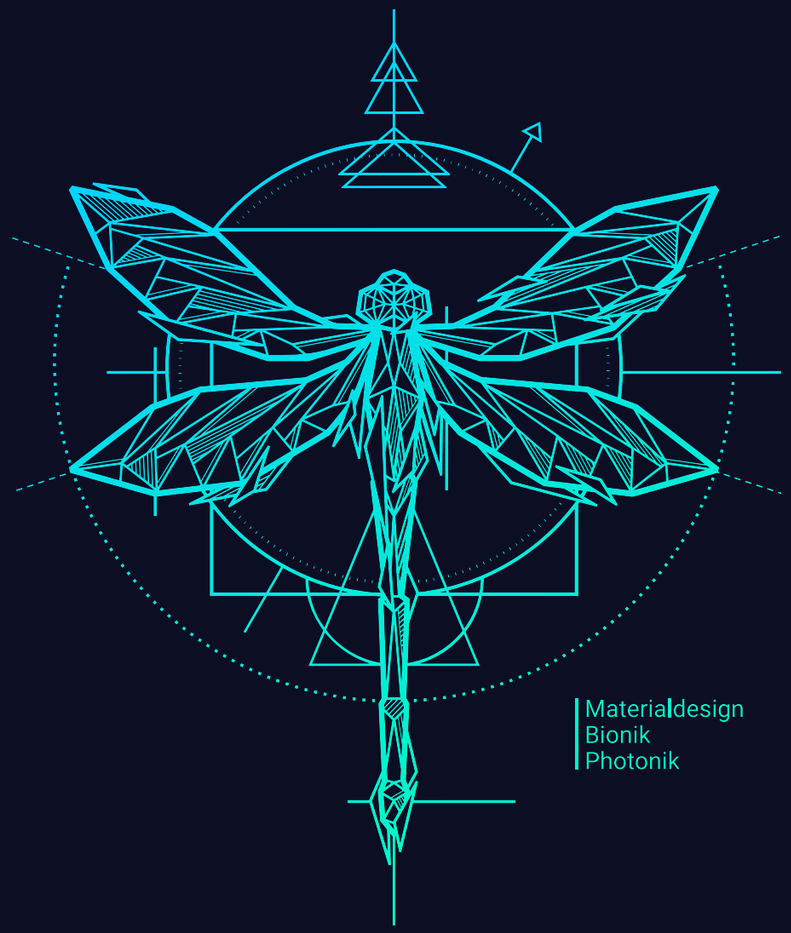
photo retouching
compositing
illustration
logo

raw

edited

photography

photography. lighting. photo editing.
affinity photo (~adobe photoshop).



mascot shirt imprint

for an engineering course.
affinity designer (~adobe illustrator)

logo design

color-agnostic shapes.
affinity designer (~adobe illustrator)

3D VISUALISATION

symbolic or realistic

modelling
shading
lighting
compositing

photoreal scenery | 2015

concept. models. light. composition.

maya. arnold. photoshop.

dragon animation | 2019

models. rig. tracking. composition.
blender. maya. 3d equalizer. nuke.

youtu.be/xa0Ispl2odU

ancient civilisation | 2013

models. textures. rendering.
blender. cycles. photoshop.

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