## **LESLEY VAN HOEK**

## Software developer, researcher, and artist in creative technology

- ₩ May 21, 1995, BredaIn lesleyvanhoek
- Rotterdam, The Netherlands
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## **EDUCATION**

# MSc Media Technology Leiden University

- **■** Sept. 2018 Sept. 2020
- Leiden, The Netherlands
- Wrote my master's thesis "Evolving Virtual Embodied Agents using External Artifact Evaluations."
- Completed the courses: Deep Learning & Neural Networks; Evolutionary Algorithms; Human Computer Interaction; Non-Human Cognition; Scientific Narration & Visualization; Sound, Space & Interaction etc.
- Worked as a teaching assistant for the courses "Introduction to Video Game Making" and "New Media & New Technologies."

## **BSc Computer Science**

#### **Avans University of Applied Sciences**

- **Sept.** 2012 Aug. 2016
- Breda, The Netherlands
- Wrote a case study report "Enhancing Visual Realism of Virtual Objects in Mobile Augmented Reality Applications using Unity3D."
- Completed the courses: Algorithms; 3D Computer Graphics; Computer Vision; Mixed Reality; Databases, Design Patterns; Network technology; Digital Signal Processing; User Experience & Interaction etc.

### Minor Games Technology Stuttgart Media University

- Stuttgart, Germany
- Completed the courses: Game Engine Programming; Computer Graphics; Programming Massively Parallel Processors; Gameplay Programming; Practical & Theoretical Game Development etc.

## **ACCOMPLISHMENTS**

#### **Publications**

 van Hoek, L., Saunders, R. & de Kleijn, R. (Forthcoming). "Evolving Virtual Embodied Agents using External Artifact Evaluations".
 Springer Communications in Computer and Information Science.

#### **Awards**

• Best Video Award. BNAIC/BeneLearn 2020 (Benelux Conference on Artificial Intelligence and Machine Learning)

## **EMPLOYMENT**

## Software Engineer Naivi + NAP Framework

Jan. 2020 - present

- Amsterdam, The Netherlands
- Contributed to the development of NAP Framework and several project under software development agency Naivi.
- NAP is an open-source real-time control & visualization platform that merges game technology with the flexibility of a creative coding environment.

## **SOFTWARE**

# Programming languages C++ C Python C# Java R Lua

#### **Tools & frameworks**

Vulkan	OpenGL/GLSL
OpenCV	Tensorflow 2 Pytorch
Bullet Physics openFrameworks	
Unity3D Arduino Pure Data	
Processing Vuforia Kinect	
Oculus HTML/CSS	

#### Version control

Git

## **LANGUAGES**

#### **Dutch**

Native language

#### **English**

C2 full professional proficiency (certified, University of Cambridge)

#### German

B1 limited working proficiency (certified, Stuttgart Media University)

## **PORTFOLIO**

#### lesleyvanhoek.nl

Please refer to my homepage for a more extensive overview of my technical, scientific and artistic work

#### Unity Developer

#### **TWNKLS Augmented Reality**

- Rotterdam, The Netherlands
- Developed AR applications for mobile, among which Augmented Blueware for Royal Delft.
- Creative research and development of tools (e.g. special effects) to increase fidelity of future projects.

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## Graphics Developer

#### **NEP Graphics**

Dec. 2016 - Sept. 2017

Hilversum, The Netherlands

- Contributed to graphics systems deployed at various customers under which the Dutch national broadcasting station (NOS).
- Developed a plugin API for Square; a controller application for displaying graphics on multiple displays.

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## Software Development intern

#### **RE'FLEKT GmbH**

Feb. 2016 - Jul. 2016

Munich, Germany

- Carried out a case study on enhancing visual realism of virtual objects in AR environments.
- Developed AR iOS application for Hyperloop Transportation Technologies with Unity3D.
- Wrote custom shader programs and optimized for mobile devices.

## **EXHIBITIONS**

#### **Sonaural**

And so on, and so forth; WORM, Rotterdam (2020)

#### **Certainty Expo**

And so on, and so forth; \_V2, Rotterdam (2019)

#### **Parallels Expo**

Artefacts of Verisimilitudes; Peron E, Utrecht (2019)