

# LESLEY VAN HOEK

Software engineer, researcher, and artist in creative technology

📅 May 21, 1995

📍 Rotterdam, The Netherlands

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🔗 [Ishoek](#)

## EMPLOYMENT

### Senior Software Engineer

#### Studio DRIFT

📅 Apr. 2024 – present

📍 Amsterdam, The Netherlands

- Build high-performance software for permanent large-scale real-time audiovisual and motor-controlled artworks in NAP.
- Solve unique complex problems w/ custom algorithms/solutions i.e. custom render pipelines, 3D fluid simulation, EtherCAT MainDevice etc.

### Software Engineer

#### NAP Labs + NAP Framework

📅 Jan. 2020 – Apr. 2024

📍 Amsterdam, The Netherlands

- NAP is an open-source real-time control & visualization platform used to build large audiovisual installations & control high-precision robotics.
- Made large contributions to NAP (mostly the Vulkan render engine) & built software for many demanding professional art installations.

### Unity Developer

#### TWNKLS Augmented Reality

📅 Dec. 2017 – Sept. 2018

📍 Rotterdam, The Netherlands

- Developed AR applications for mobile devices, among which 'Augmented Blueware' for Royal Delft.

### 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).

### Software Development intern

#### RE'FLEKT GmbH

📅 Feb. 2016 – Jul. 2016

📍 Munich, Germany

- Case study: Enhancing visual realism of virtual objects in AR envs.

## EDUCATION

### MSc Creative Intelligence & 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."

## SOFTWARE

### Programming languages

C++ C Python C# Java  
R Lua

### Tools & frameworks

NAP Vulkan OpenGL/GLSL  
OpenCV Tensorflow 2 Pytorch  
Bullet Physics openFrameworks  
Unity Engine Arduino Pure Data  
Processing

### 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)

## OTHER

### Driver's license

Category B

## PORTFOLIO

🌐 [lesleyvanhoek.nl](https://lesleyvanhoek.nl)

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

## 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.
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## Minor Games Technology

### Stuttgart Media University

📅 Sept. 2015 – Feb. 2016

📍 Stuttgart, Germany

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

## ACCOMPLISHMENTS

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### 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.
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### Awards

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

## EXHIBITIONS

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### 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)