Lauren Thor Zerbin

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WORK EXPERIENCE

Aarhus University *Aarhus, Denmark*

Research Assistant - XR Interaction Group **Jan. 2025 – Present**

- Authored and co-authored papers published in a major conference (ISMAR) on interaction techniques in XR using gaze and hand input.
- Prototyped techniques using the Meta Quest Pro in Unity.
- Performed multiple user studies (n= ~20) and data analysis using R.

Teaching Assistant - Visual Computing 1 & 2 **Aug. 2025 – Present**

- Taught OpenCV and OpenGL concepts to a class of 30 Master's students.
- Introduced students to Unity and XR development.

EDUCATION

Aarhus University **2024 - Expected Graduation June 2026**

Master of Science, Computer Science *Aarhus, Denmark*

- **Current Grade: 11.55 / 12 (Danish Scale) - (Equiv. US GPA 3.9/4.0)**
- Specialization in Ubiquitous Computing, HCI and Machine Learning
- Thesis: Designed and developed a novel XR interaction technique that eliminates parallax-induced double vision for 3D selection and manipulation at any distance (unpublished paper).

University of Hamburg **2021 - 2024**

Bachelor of Science, Human-Computer Interaction *Hamburg, Germany*

- **Final Grade: 1.21 / 1.0 (German Scale) - (Equiv. US GPA 3.79/4.0)** *Top of class*
- Thesis: Designed and evaluated an interaction technique using gaze and blinking as input in XR (Pre-print available).

SKILLS

- **Technologies:** Unity, RStudio, OpenCV, OpenGL, Meta XR SDK
- **Programming Languages:** C#, R, Java, Python, C++, JavaScript, HTML, CSS
- **Languages:** German (native), English (professional), Danish (conversational)

PROJECTS

Window Gestures | Unity, Meta XR SDK, C#

- Developed custom hand-gesture recognition for XR window management using Unity and the Meta XR SDK, evaluated via a user study to measure performance, usability and user experience.

Kitchen AId | React, JavaScript, OpenAI API

- Created a React web application integrating the OpenAI API to algorithmically generate personalized recipes based on user-provided inventory, dietary constraints and day-to-day preferences.

Brush Hour | Unity, Meta XR SDK, C#

- Programmed a mixed-reality game in Unity utilizing C#, leveraging the Meta Passthrough API to transmute reality into a live-updated painting via optimized compute shaders stand-alone on the Quest 3.

UFO-Explorer | HTML, CSS, JavaScript, D3, Python

- Built an interactive dashboard D3.js to visualize 100k+ data points, utilizing Python to automate pre-processing.