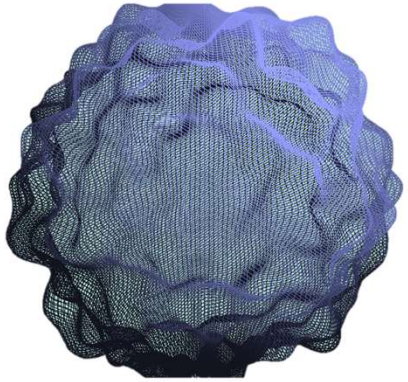
Reactive 3D Visualizer for Live performance

Master's Degree in Artificial Intelligence and Robotics



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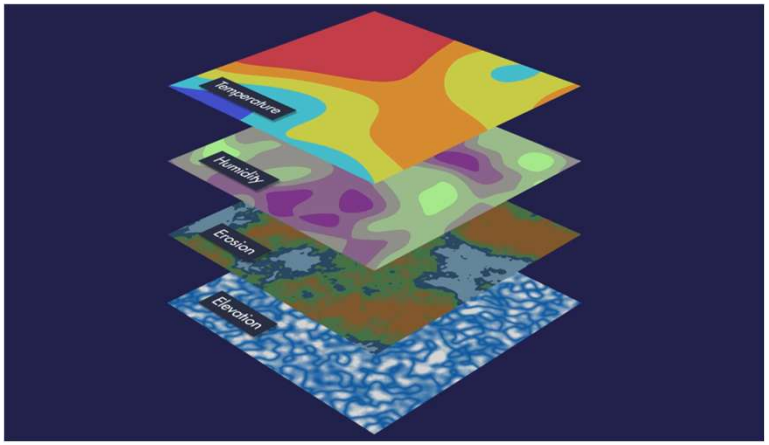
Motivation and Goal

- **Inspiration:** *The Math Behind the Best-Selling Games: Perlin Noise* by Newbie Indie Game Dev (Youtube)



- **Goal:** Develop an easy-to-use and flexible 3D audio visualizer, suitable for live performance

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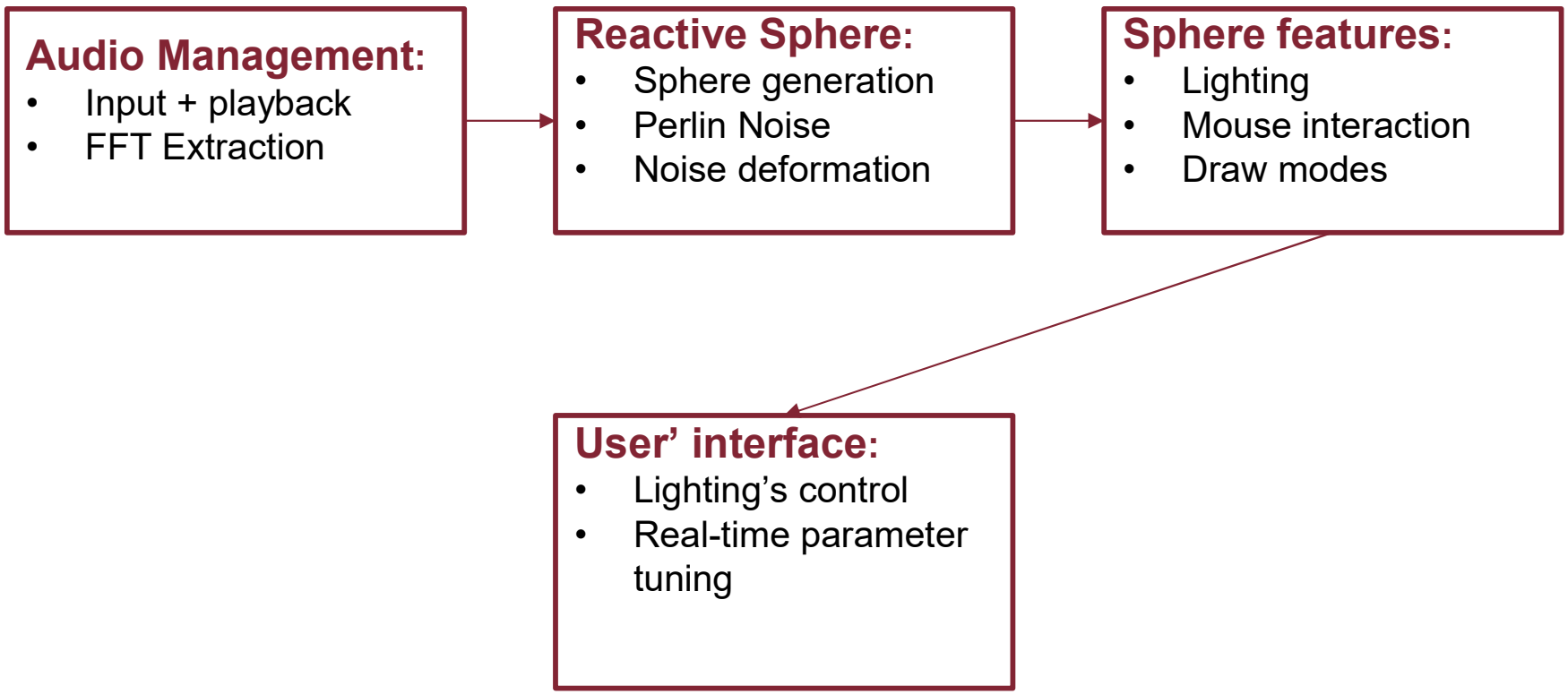
Implementation Overview

Block Diagram



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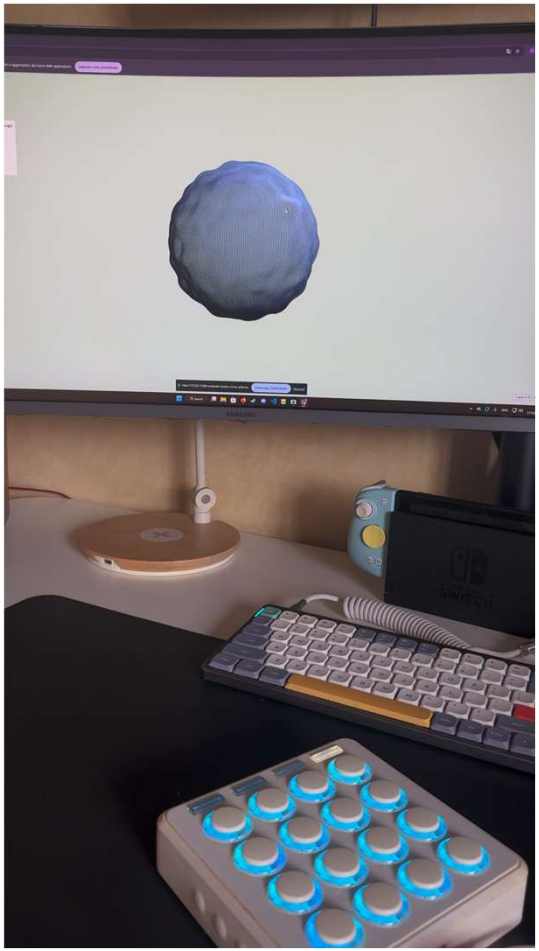
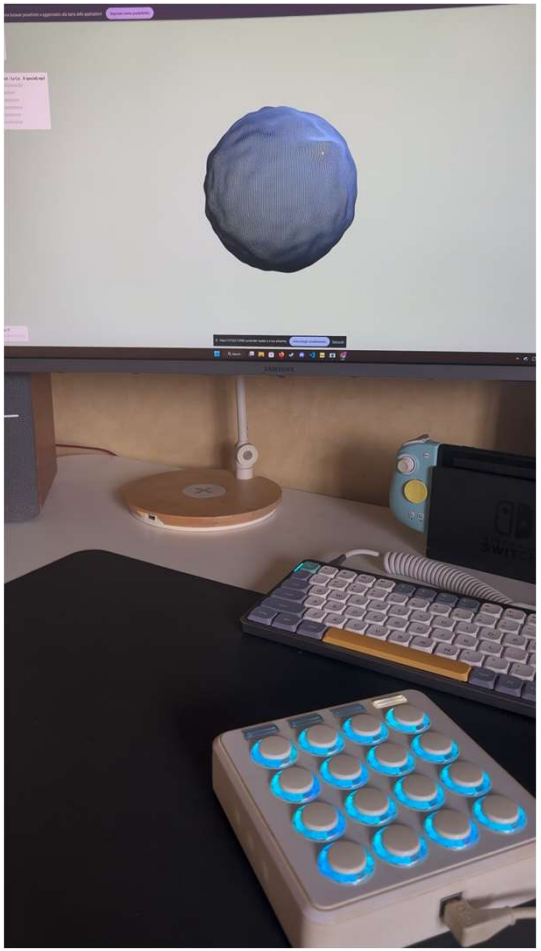
Live Performance Demo

Real-time interaction with audio





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Conclusions

Future Works

- Real-time 3D visualizer driven by audio features
- **Flexible and interactive:** visualization modes and tunable parameters
- **Future works:** new geometries, Blinn–Phong diffusion, filtering for FFT or NN isolation

Final Thanks

Conclusions

Thanks for your attention!