

# LINDSAY KORNGUTH

## Education

### Columbia University, Columbia College

Bachelor of Computer Science

GPA: 3.8 | Class of 2023

### Stanford University, School of Engineering

Graduate Certificate in Visual Computing

In Progress | Expected 2025

## Experience

### R&D Intern, CLO Virtual Fashion

June 2023 - August 2023 (Culver City, CA)

- Perform research in garment simulation, computer graphics, geometric modeling, numerical simulation, visualization, and CAD modeling.
- Interface with engineers, developers, and 3D designers to translate research findings into actionable advancements of products

### Animation Production Intern, Partizan Entertainment

January 2023 - May 2023 ( Remote )

- Composed director's treatment for animated short, including storyboard and preproduction animatics
- Streamlined production workflows and collaboration with Asana
- Researched industry trends and provided editorial assistance

### Frontend Developer (three.js), Leo Villareal Studio

Sept 2022 - January 2023 ( Brooklyn, NY )

- Iteratively tested/debugged javascript code
- Developed website for award-winning artist's [virtual gallery](#)
- Performed database queries, python scripting, and debugging

### Immersive Experience Design Intern, MERGE

May 2022 - August 2022 ( Remote )

- Developed application software within XR rendering pipeline in Niantic 8th Wall, including javascript API and three.js libraries
- Lead experience design & front-end design/dev for month-long digital marketing campaign with cross-functional team
- Acquired wire-framing, animation, and prototyping skills in Figma

## Extracurriculars & Achievement

- Dean's List Academic Achievement Award ( x5 ), Columbia
- [Featured Artist](#) , Ratrock Magazine ('22)
- A.I. Safety Research Fellow, Columbia Effective Altruism ('22)
- Prototyper, Columbia Digital Storytelling Lab ('21-'23)
- Founder/President, Miramonte HS Chess Club ('15-'19)
- [U.S. Chess Federation Top 50: Highest Rated Female Players](#)

## Technical Skills

- HTML/CSS/ Javascript
- C/C#/C++
- Python
- numpy
- Three.js
- Node
- React
- OpenGL
- GLSL
- Unity 3D
- Cinema 4D
- Maya
- Houdini
- Qt/PyQt
- Linux/Unix
- Git Version Control
- Data Structures
- Linear Algebra
- Physics-Based Simulation
- OpenGL Rendering Pipeline
- Adobe Creative Suite

## Projects

- [Flaneur App](#) (Figma, Adobe Illustrator/AE) - Collaborated with a team of students to design, develop, and pitch an activity-driven matchmaking app. Established visual brand, created animatics/gif content, and prototyped user flows in Figma.
- [Virtual Light-Art Display](#) (Three.js, WebGL) - Developed interactive virtual 3D 'Lite-Brite' toy with customizable lighting using Three.js. Integrated external data, and incorporated user-friendly controls for lighting and camera interaction.
- [Node Graph Visualizer](#) (C++, javascript, qml) - Used Qt to build developer-facing graphical interface that displays nodes and dependencies for real-time physics-based cloth simulation software. Design inspired by Autodesk Maya's Hypergraph.
- [Ray Tracing Engine](#) (C++) - Monte Carlo Ray Tracer built from scratch featuring global illumination, optimized anti-aliasing techniques, UV texture-mapping, scene-wide BVH, and a custom file parser.
- [Interactive Mesh Viewer](#) (OpenGL, C++, HLSL) - OpenGL app processes vertex coordinates and renders objects with custom Blinn-Phong fragment shader and soft shadows. Handles UI events for real-time rotation, scaling, and windowing transformations.
- [VR Music Video](#) (Three.js, WebGL) - Directed and developed real-time virtual reality music video featuring point and diffuse lighting, 3D character model and rig, particle animations, environment cube map, touch interaction, and original audio.

## Relevant Coursework

- Computer Graphics - Columbia, **Grade:** A-
- Animation & Simulation - Stanford, **Grade:** TBD
- UI/UX Design Lab - Columbia, **Grade:** A+
- Digital Game Design - Columbia, **Grade:** A
- Linear Algebra - Columbia, **Grade:** A-
- Data Structures & Algorithms - Columbia, **Grade:** B+
- Advanced Programming in C - Columbia, **Grade:** A-



[Github](#)



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