

Luke Kratsios

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I am a multidisciplinary designer, software developer, and researcher with expertise in coding, architectural design, rendering, ai, visual effects, and building systems. My research for the last 14 months has been integrating and improving the use of artificial intelligence in design workflows. I am committed to enhancing design tools and integrating emerging technologies to foster a sustainable design future.

EXPERIENCE

Nvidia Omniverse Extension Engineer

Summers 2021
and 2022

- Developed software for remote automated optimization of high poly meshes
- Facilitated the creation of complex digital twin environments
- Created Blender-Omniverse plug-in; developed and integrated features for user interface
- Collaborated with multiple international teams to successfully bridge mutual interests
- Utilized Git for version control, code reviews, and joint project development

Research and Teaching Assistantships

- Research Assistant, Cornell Computer Graphics Laboratory, Prof. Don Greenberg
• Conducted multidisciplinary research in computer graphics, parametric design, and artificial intelligence 2021 - 2023
- Teaching Assistant, Cornell Computer Graphics - Visual Imaging in the Electronic Age, Prof. Don Greenberg Fall 2021
- Research Assistant, Cornell Robotic Construction Laboratory (RCL), Prof. Sasa Zivkovic Spring 2021
• Developed robotic control code, operated, and maintained 7-axis robotic arm

Co-Founder and Business Developer of Virtual Summer Camp

Summer 2020

- Camp Connect; Covid Pandemic Startup providing affordable and unique STEM classes for middle school students
- Team consisting of 32 employees serving 125 students

Commissioned Artist

2018 - Present

Create graphic designs and renderings for use in advertising, competitions, promotions, and publications

EDUCATION

Cornell University, Bachelor of Architecture: 5-year degree program
Dean's List; GPA 3.8; matriculated May 2023

2018 - 2023

Cornell Architecture Summer Exhibition Selectee

Thesis research showcased in "exhibition of exemplary student work"

Summer 2023

Relevant Coursework

Computer Graphics, Object-Oriented Programming & Data Structures, Discrete Structures, Advanced Game Design

Senior Thesis: Architectural Intelligence

Developed and utilized state of the art generative AI tools to examine how designers can leverage inherent training biases and input data for use in the design process
More info at: www.lukekratsios.com/thesis

Fall 2022 – Spring 2023
Research Ongoing

Independent Study in Digital Fabrication and Parametric Design

Explored the use of Bamboo as a modular building material in tensile structures

Spring 2021

Independent Study in Virtual Reality and Visualization

Explored the use of VR in the development of architectural projects and communication

Spring 2020

Fiorello H. LaGuardia High School of Music, Art and Performing Arts, New York, NY, Visual Art Studio
Advanced High School Regents Diploma; GPA: 95/100

2014 - 2018

LEADERSHIP AND EXTRACURRICULARS

ACHA Men's Division 1 Cornell Club Hockey, Ithaca, NY

Team Captain 2022-23, 2023 National Championships, Team Apparel Manager and Graphic Designer

2019 - 2023

Dragon Day, Cornell University

Member of leadership team; designed and constructed 70-foot mobilized articulating dragon

Spring 2019

Eagle Scout; Boy Scouts of America Troop 1, New York, NY

Positions: Senior Patrol Leader (2 years); Assistant Senior Patrol Leader (1 year); Community Service: 300 hours

2010 - 2018

USA Hockey, New York, NY, Tier II Travel Hockey; Team Captain 2016-17

2006 - 2018

ACE Mentorship Program, New York, NY; 2nd-Place Winner in National Design Competition

2016 - 2017

ADDITIONAL INFORMATION

CITIZENSHIP: USA and Canada

SKILLS

- Object Oriented Programming (Python, C#, C++)
- Automation (Blender Python, RhinoCommon, Grasshopper)
- Generative Artificial Intelligence
- Stable Diffusion
- Rhino 3D (Modeling, Parametric Design)
- Blender (Rendering, Modeling, Animation, rigging, Geo-nodes)
- AutoCAD/Revit
- Adobe Creative Suite (Photoshop/Lightroom, Illustrator, InDesign)
- User Experience (UX)
- User Interface Design (UI)
- Web Development
- VR/AR
- Game Design
- Character Design (2D/3D)
- Unreal Engine
- Unity
- Omniverse

Portfolio Website: www.lukekratsios.com

REFERENCES: available upon request