

# Richard Álvarez

📞 +1 773 469 9726 | ✉ rawalvarez731@gmail.com | 🌐 GitHub | 🌐 raulduke.com | 📍 Chicago, Illinois

## About Me

I am an aspiring computer engineer passionate about creating tools for VFX and filmmaking. I focus on developing tools that enhance creative workflows, with experience in research, programming, and collaborative film production. I have created over 17 unique open-source projects and published two papers with over 300 downloads. Pursuing a degree in Film hones my creative problem-solving and project management skills. I excel in developing professional video content and organizing group projects. I also enjoy reading, listening to music, visiting local theaters, and cycling.

## Education

<b>New York University (NYU) Tandon School of Engineering</b> <i>Master of Science in Computer Engineering</i>	Brooklyn, New York Aug 2025
<b>Kenyon College</b> <i>Bachelor of Arts in Film; GPA: 3.4/4.0</i> <i>Minor in History and Concentration in Integrated Program in Humane Studies</i>	Gambier, Ohio Aug 2020 – May 2024
Authored two papers on machine learning applications in creative industries. Produced and edited over 15 experimental video projects, including music videos, audio-reactive visualizations, and short films.	
Relevant coursework includes AI for the Humanities (IPHS 300), Advanced Post-Production (FILM 391), Data Structures and Program Design (SCMP 218), Digital Photography (ARTS 321), Sex, Drugs, Guns: Research Strategies in the Contemporary Age (INDS 140), and Software Development (SCMP 318).	

## Work Experience

<b>IT Assistant</b> <i>Library and Information Services (LBIS), Kenyon College · Part-time</i>	Gambier, Ohio Sep 2023 – Feb 2024
I supported campus-wide technology needs by preparing workstations, moving office tech, and securely erasing and recycling equipment. I restocked printers daily. I conducted classroom checks under the guidance of team members. I streamlined team projects by applying programming skills, in one instance by generating a spreadsheet of course meetings and classroom locations to determine when our techs could perform maintenance.	
<b>Assistant General Contractor</b> <i>Sommerlad Construction · Part-time</i>	Chicago, Illinois Jun 2023 – Aug 2023
I participated in demolition projects for remodeling efforts, performed general land management tasks such as lawn mowing and simple assembly, and supported the team in meeting deadlines and adhering to safety standards.	
<b>Video Editor</b> <i>Kenyon College · Contract</i>	Gambier, Ohio · Remote Apr 2022 – May 2022
I condensed over 30 hours of interviews into a concise 10-minute recap for the John W. Adams Summer Scholars Program in Socio-Legal Studies. I crafted a polished visual presentation that adhered to Kenyon's Visual Identity System. I highlighted key interview themes while ensuring balanced representation of all participants. I delivered the final product on schedule in an optimized format, maintaining professional collaboration with the employer throughout the project.	

## Publications

<b>A Retrieval-Augmented Film Recommendation System</b>   <a href="#">GitHub</a>   <a href="#">Digital Kenyon</a>   May 2024
This project utilized LangChain's OpenAI integration to dynamically generate queries based on user preferences, showcasing the potential of advanced AI and machine learning in digital entertainment. The Retrieval-Augmented Film Recommendation System was developed using Node.js and integrated with the OMDb and TMDb APIs to enhance movie metadata, delivering precise and personalized recommendations.
<b>Unsupervised Deep Learning and PySceneDetect Analysis</b>   <a href="#">GitHub</a>   <a href="#">Digital Kenyon</a>   May 2023
This research focused on analyzing short-format video editing trends by leveraging PySceneDetect and unsupervised deep neural networks. Advanced data visualization techniques, including t-SNE and PCA, were employed to uncover patterns and gain insights into the editing styles and trends prevalent in the dataset.

## Skills

<b>Programming:</b> Python, JavaScript/TypeScript, SQL, PHP, C, C++, Rust
<b>Frameworks:</b> Next.js, React, Tailwind CSS, Scikit-Learn, Keras
<b>Applications:</b> DaVinci Resolve, Adobe Creative Suite, Cinema4D
<b>Research:</b> Cybersecurity, LxMs, AI/machine learning, video analysis
<b>Languages:</b> English (Fluent), Spanish (Intermediate)