# Richard Álvarez

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## About Me

I am a seasoned programmer and competitive team leader with 17 unique open-source projects and two published papers on large language models. Currently focused on advancing into VFX and computer rendering, I aim to revolutionize visual storytelling with technology. This year, I am a judge for the BDPA High School Competition. My recent work includes developing a full-stack web application using Next.js. Outside my professional pursuits, I enjoy reading, visiting local theaters, and hiking.

## Education

**Kenyon College** Gambier, Ohio

*Bachelor of Arts in Film* *Aug 2020 – May 2024*

*Minor in History and Concentration in Integrated Program in Humane Studies*

- **Relevant coursework:** Senior Research Seminar, AI for the Humanities, Software Development, Programming Humanity, Data Structures & Program Design, Introduction to Programming
- **Extracurriculars:** Horn Gallery Videographer, Club Basketball, KSJP

## Work Experience

**Library and Information Services (LBIS), Kenyon College** Gambier, Ohio

*IT Assistant* *Sep 2023 - Feb 2024*

At Kenyon College, 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.

**HSCHK** Chicago, Illinois

*Research Assistant* *Aug 2018 – Nov 2019*

At the University of Chicago, I worked under Bernard Dickens III on an academic paper proposing strategies to protect against supply-chain attacks and ensure file integrity using advanced checksum technologies. I attended monthly code reviews and contributed 27 commits to the repository. This role taught me professionalism and collaboration in cybersecurity.

## Publications

**A Retrieval-Augmented Film Recommendation System** | *GitHub* | *Digital Kenyon* | May 2024

- Utilized LangChain's OpenAI integration for dynamic query generation based on user preferences, demonstrating the potential for advanced AI and machine learning techniques in digital entertainment.
- Developed a Retrieval-Augmented Film Recommendation System using Node.js, integrating OMDb and TMDb APIs to enhance movie metadata for precise and personalized recommendations.

**Unsupervised Deep Learning and PySceneDetect Analysis** | *GitHub* | *Digital Kenyon* | May 2023

- Analyzed short-format video editing trends using PySceneDetect and DNNs.
- Employed t-SNE and PCA for data visualization and pattern discovery.

## Skills

**Languages:** English (Native), Spanish (Intermediate)

**Programming:** C, C++, Python, JavaScript/Node, Rust, SQL, MySQL, PHP

**Technologies:** Docker, DNNs (Deep Neural Networks), NLP (Sentiment Analysis, Topic Modeling), OpenCV, Linux

**Frameworks** Next.js, React, Tailwind, Scikit-Learn, Keras

**Applications**: Davinci Resolve, Adobe Suite, Cinema4D