Richard Álvarez

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About Me

I am a seasoned programmer with 17 unique open-source projects and two published papers on large language models. My research interests include VFX, computer rendering, DevOps, cybersecurity, and machine learning. My academic background in Film has equipped me with a creative approach to problem-solving and project management. I have the technical skills to create professional video content, develop high-level plans, and execute group projects efficiently. Outside my professional pursuits, I enjoy reading, visiting local theaters, and cycling.

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*

I supported campus-wide technology needs by preparing workstations, moving office tech, and securely erasing and recycling equipment. I restocked printers daily. I demolished hard drives. 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.

Sommerlad Construction — Chicago, Illinois
General Contractor — *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.

HSCHK, University of Chicago — Chicago, Illinois
Research Assistant — *Aug 2018 - Nov 2019*

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: Python, JavaScript/Node, SQL, PHP, C, C++, Rust

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