Richard Álvarez

+1 773 469 9726 | rawalvarez731@gmail.com | LinkedIn | GitHub | Portfolio | Chicago, Illinois

Education

Kenyon College — Gambier, Ohio
Bachelor of Arts in Film; ***GPA: 3.00/4.00*** — *Aug 2020 – May 2024*
Concentration in Computing and Integrated Program in Humane Studies — *Oct 2020 – Jul 2023*

Walter Payton College Preparatory — Chicago, Illinois
High School Diploma — *Sep 2016 – Jun 2020*

Work Experience

Private Stock Studios — Chicago, Illinois, United States
Production Assistant — *Apr 2020 – Aug 2020*

- Assisted with both film and music production tasks, ensuring smooth operations during recording sessions and shoots.
- Coordinated with studio engineers, directors, and artists to align production schedules and meet project timelines.
- Handled equipment setup, calibration, and breakdown for various sessions, ensuring optimal audio-visual quality for recordings.
- Maintained a meticulous record of studio sessions, ensuring that all production details, notes, and changes were documented for future

Research Experience

HSCHK — Chicago, Illinois, United States
Research Assistant — *Aug 2017 – Nov 2019*

- Joined research conducted by Bernard Dickens III at the University of Chicago aimed at pioneering preventative measures against supply-chain attacks and ensuring file integrity via file checksums.
- Played a key role in the design and implementation of a novel web browser extension, HSCHK, which automates file checksum verification over DNS.
- Actively participated in comprehensive research, gathering and compiling crucial information from various articles and papers relevant to the project's objective.
- Effectively communicated, both in writing and verbally, the design philosophy and technical aspects of HSCHK to stakeholders and team members.
- Demonstrated a strong ability to learn independently, quickly adapting to new concepts and technologies, while also showcasing proficiency in collaborative research and development.

Awards & Achievements

High Honors Degree: Awarded to Bachelor alumni who have graduated with a GPA greater than or equal to 3.50 by Boğaziçi University.

National University Admission Exam (YKS): Ranked 75^{th} in Mathematics and Science among ca. 2.3 million candidates with a test score of 489.92/500.

KYK Outstanding Success Scholarship: Awarded to undergraduate students who have been ranked in the top 100 on National University Admission Exam by Higher Education Credit and Hostels Institution (KYK).

Boğaziçi University Success Scholarship: Awarded to undergraduate students who have been ranked in the top 100 on National University Admission Exam by Boğaziçi University.

TÜBİTAK 2247-C Intern Researcher Scholarship: Awarded to undergraduate students who take part in research projects carried out by the Scientific and Technological Research Council of Turkey (TÜBİTAK).

Duolingo English Test (DET): Overall Score: 135/160

Kocaeli Science High School Salutatorian Award: Graduated as the second-highest ranked student in my class.

Projects

Filters and Fractals | *GitHub*

- A C project which implements a variety of image processing operations that manipulate the size, filter, brightness, contrast, saturation, and other properties of PPM images from scratch.
- Added recursive fractal generation functions to model popular fractals including Mandelbrot set, Julia set, Koch curve, Barnsley fern, and Sierpinski triangle in PPM format.

Chess Bot | *GitHub*

- A C++ project in which you can play chess against an AI with a specified decision tree depth that uses alpha-beta pruning algorithm to predict the optimal move.
- Aside from basic moves, this mini chess engine also implements chess rules such as castling, en passant, fifty-move rule, threefold repetition, and pawn promotion.

CMPE 250 Projects | *GitHub*

- Five Java projects assigned for the Data Structures and Algorithms (CMPE 250) course in the Fall 2021-22 semester.
- These projects apply DS&A concepts such as discrete-event simulation (DES) using priority queues, Dijkstra's shortest path algorithm, Prim's algorithm to find the minimum spanning tree (MST), Dinic's algorithm for maximum flow problems, and weighted job scheduling with dynamic programming to real-world problems.

Skills

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

Technologies: Git, Docker, OpenCV, Linux, Puppet, LaTeX

Languages: English (Native), Spanish (Intermediate)

Frameworks Next.js, React, Tailwind
Applications: Davinci Resolve, Adobe Suite