Miguel A Castillo

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EDUCATION

Rutgers University-New Brunswick, NJ   **Expected Graduation May 2024**

Bachelor of Arts in Computer Science

- **Skills**: Python, C++, JavaScript, HTML, CSS, Tailwind, Java, JDBC, zsh Shell, Jupyter, R, SQL, Data Analysis, Public Speaking
- **Languages**: English (Fluent), Spanish (Fluent)
- **Relevant Coursework**: Data Structures (210), Intro To Artificial Intelligence(440), Design and Analysis of Computer Algorithms (344), Principles of Information and Data Management (336), Data Management for Data Science (210)
- **Honors**: Educational Opportunity Fund (EOF) Scholar

PROJECTS

Flight Travel Reservation System   **October 2023**

Rutgers CS 336- Fall 2023

- Engineered and constructed a relational database system to empower an online travel reservation platform, leveraging MySQL. Conceptualized and crafted an Entity-Relationship (ER) diagram for an insightful database structure, honing data modeling proficiency.
- Executed SQL schemas and fortified integrity constraints, ensuring precision and reliability of data. Employed Java, HTML, SQL, and CSS to establish seamless connectivity between the user interface and the database.
- Collaborated effectively within a dynamic four-member team, showcasing exceptional teamwork and adept project management.
- Demonstrated mastery in database design, SQL programming, and web development, resulting in the successful delivery of a fully operational travel reservation system.

Ray Tracing   **January 2023**

Rutgers CS 336- Fall 2023

- Ray tracer in C++, meticulously computing pixel colors by projecting rays from each pixel into the scene and accurately gauging the angle disparity between the light source direction and surface normal.
- Orchestrated a sophisticated ray tracing system, demanding a profound understanding of geometry and linear algebra, as it dispatched rays from every pixel to compute intricate color values.
- Implemented an array of advanced capabilities, including image generation in the PPM format, creation of a custom vec3 class for precise color manipulation, and comprehensive support for diverse elements such as spheres, multiple objects, diffuse materials, metals, dielectrics, and precise camera positioning.

WORK EXPERIENCE

Triple Five Group   **September 2019 – January 2020**

American Dream Nickelodeon Ride Operator

- It requires reaching at or below and occasionally above shoulder level, frequent pushing/pulling, stooping/squatting, and occasional lifting/carrying of up to 10 pounds.
- Proficient in utilizing microphones to convey instructions and address guest concerns. Demonstrated ability to positively interact with guests both verbally and non-verbally, ensuring an outstanding experience. Highly vigilant in visually and audibly observing safety and guest concerns while operating rides and attractions.

Online Entrepreneurship   **September 2016 – Present**

- Strategically expanded the enterprise by continuously reinvesting profits into acquiring essential tools and incrementing the inventory. Recognized the potential in sourcing, repairing, and reselling a diverse range of products, including clothing and collectibles.
- Executed multifaceted roles, covering sourcing, cleaning, and repairing items, as well as conducting professional photography for product listings. Frequently traveled from New Jersey to New York City to participate in exclusive release events, expanding the business's inventory.
- Built strong relationships with a diverse customer base, offering top-tier service, and promptly addressing their inquiries and concerns. Maintained a solid reputation for reliability and professionalism.