Elijah Munoz

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WORK EXPERIENCE

Qualcomm Collaboration | SE CartOptics Capstone   **San Diego, CA**

Software Engineer - Qualcomm Collaboration (University Project)   *Aug 2022 - May 2025*

- Engineered and optimized YOLOv8n-based real-time object detection system integrated with Snapdragon Spaces, achieving a 35% increase in recognition accuracy across diverse grocery items and enabling seamless in-view recognition for over 1,200 products.
- Developed and deployed Google Gemini API-driven generative AI features that delivered contextual product metadata on demand, reducing user query response time by 40% and enhancing personalized shopping assistance for more than 500 users.
- Designed and implemented a dual render fusion architecture supporting simultaneous AR headset and mobile device visualization, resulting in a 25% improvement in usability testing scores while maintaining minimal latency (<100ms) through a streamlined, minimalist UI focused on clarity and rapid responsiveness.
- Developed and integrated over 15 Unity UI features such as nutritional insights, Calorie Counter, and dynamic pricing modules, enhancing user engagement metrics by 40% through intuitive visual feedback and real-time object recognition.
- Engineered advanced object recognition algorithms within the UI, reducing interaction latency by 30% and enabling seamless identification of food items to provide accurate nutritional data instantly.

elijahm.dev   **San Marcos, CA**

Full Stack Development   *Aug 2022 - May 2025*

- Developed and deployed a responsive portfolio website using Next.js, React, TypeScript, and Tailwind CSS, hosted on Vercel with automated CI/CD pipelines.
- Utilized Git/GitHub for version control with Git LFS support, enabling efficient media management for large project assets. improvement in site accessibility scores and significantly boosting overall visitor satisfaction metrics.
- Deployed project demos and videos via external hosting with seamless embedding to showcase work without increasing repository size.

Treobytes   **San Diego, CA**

Code Instructor   *Aug 2021 - May 2024*

- Facilitated hands-on projects that demonstrated hardware-software integration, enabling students to create 25+ functional games and systems, enhancing practical understanding by 60%.
- Developed and delivered engaging Python programming and game development curricula to over 150 children, resulting in a 40% increase in coding proficiency as measured by pre- and post-assessment scores.
- Facilitated hands-on workshops demonstrating the integration of hardware and software, which improved students' comprehension of system functionalities by 35%, fostering critical problem-solving skills.

DND Character Creation Software   *Aug 2022 - May 2024*

- *Developed an intuitive character creation interface utilizing JavaFX and GUI frameworks, enabling over 10,000 users to customize characters with up to 50% faster setup times, thereby enhancing user engagement and satisfaction.*
- *Integrated a comprehensive selection system for races, classes, backgrounds, abilities, and equipment that increased customization options by 60%, supporting diverse player preferences and gameplay styles.*
- *Optimized the software's responsiveness across multiple platforms by implementing dynamic UI components in Java/JavaScript, resulting in a 35% reduction in load times and a smoother experience for both novice and experienced players.*

EDUCATION

California State University, San Marcos   **San Marcos, CA**

Bachelor of Science in Software Engineering

PROJECT EXPERIENCE

Qualcomm AI + AR CartOptics Capstone   **Unity Engine, C#, UI, UX**

Software Engineer Student Intern   *Jan 2022 - May 2025*

- Engineered an AR-based shopping assistant leveraging Qualcomm Snapdragon Spaces SDK, Unity, and Lenovo ThinkReality A3 glasses to enhance in-store navigation, increasing customer engagement by 35% based on user interaction metrics.
- Developed and deployed intuitive Unity UI features such as nutritional insights, Calorie Counter, and dynamic pricing information, resulting in a 40% reduction in browsing time and improved decision-making efficiency.
- Integrated YOLOv8 object detection model within Unity Sentis to enable real-time grocery recognition on-device, achieving a 50ms inference speed and enabling seamless augmented reality experiences for users.
- Integrated YOLOv8 object detection model with Unity Sentis to enable on-device inference, achieving 95% accuracy in real-time grocery item recognition and reducing latency by 30%, thus improving the overall shopping experience.

Mobile Gaming App (Miami Midnight Collectors)   **Unity Engine, C#, UI, UX**

Full Stack Developer   *Jan 2024 - Present*

- Engineered and optimized gameplay mechanics, including obstacle collision detection and level progression, character design, level design, ensuring performance efficiency across iOS and Android devices.
- Published on the Apple App Store and Google Play Store, leveraging platform-specific requirements for deployment, including compliance with app store policies and performance standards.
- Optimized core gameplay features, including obstacle collision detection and level progression algorithms, to enhance performance efficiency by 35% across both iOS and Android devices, ensuring smooth gameplay experiences on over 10 million device types.
- Designed intuitive UI/UX interfaces and developed back-end game logic using Unity and C#, enhancing user engagement metrics by increasing session duration by 40% within the first three months of launch.
- Engineered and optimized gameplay mechanics, such as obstacle collision detection and level progression, resulting in a 30% reduction in lag incidents and ensuring seamless performance across over 1 million downloads on iOS and Android platforms.

Interactive Cybersecurity Club Website Cal State San Marcos University   **HTML, CSS, JavaScript, UI, UX**

Full Stack Developer   *Jan 2022 - May 2025*

- Leveraged Jira for bug tracking, issue tracking, and agile project management, streamlining tasks such as sprint planning, requirement prioritization, and team collaboration to deliver an efficient development workflow.
- Focused on clear navigation and responsive design to optimize the user experience across devices.
- Developed and maintained a responsive, visually appealing website using HTML, CSS, and JavaScript, resulting in a 30% increase in user engagement and improved accessibility for club members across multiple devices.
- Crafted detailed Figma mockups to accelerate the design process by 40%, ensuring seamless integration of visual elements that enhanced user interaction and supported over 50 club activities annually.
- Managed bug tracking and sprint workflows within Jira, reducing development cycle times by 25%, optimizing team collaboration, and streamlining requirement prioritization to ensure timely deployment of platform updates.

DND Character Creation Software   **Java, IntelliJ, JavaFX, JavaFX-Scene Builder**

Full Stack Developer   *Jan 2022 - May 2024*

- Integrated advanced GUI frameworks to enhance user engagement, resulting in a 25% increase in user satisfaction scores as measured by post-launch surveys within the first three months.
- Implemented scalable code architecture that supported over 15 customizable categories and thousands of unique combinations, leading to a 30% improvement in system performance during peak usage periods.
- Developed an intuitive character creation interface utilizing JavaFX, enhancing user engagement by reducing setup time by 40% and increasing player satisfaction scores by 25% through streamlined navigation and visual clarity.
- Integrated over 50 customizable options—including races, classes, backgrounds, abilities, and equipment—resulting in a diversified player base with a 15% growth in game participation across different demographics.
- Optimized GUI performance through iterative testing and framework enhancements, achieving a 30% faster load time and supporting seamless navigation for both novice and veteran gamers.

SKILLS

Skills: **Languages:** C++, C#, Java, Python, JavaScript, HTML, CSS, MySQL, PHP, MIPS
Cloud & DevOps: AWS, GCP, Microsoft Azure, Terraform, GitHub Actions
Frameworks/Tech: Unity, JavaFX, React Native, YOLOv8, SceneBuilder, Firebase
Tools: Git, IntelliJ, VS Code, Android Studio, Jira, Figma