

Marshal D Hernandez

XR Design and Development Professional

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marshalhernandez.com



Professional Summary

Marshal D. Hernandez is a highly accomplished XR design and development professional experienced in digital content creation, product management, and emerging technologies. As the founder and owner of rayBLAST, LLC, Marshal has established himself as a specialist, providing cutting-edge XR consulting services to clients across various industries. His extensive knowledge of XR platforms, development tools, and spatial design has enabled him to deliver transformative solutions that push the boundaries of extended reality.

Through rayBLAST, Marshal leverages his expertise to help clients navigate the complex landscape of XR development. He works closely with organizations to understand their unique needs and goals, crafting customized strategies to bring their XR visions to life. From conceptualization and design to implementation and deployment, Marshal guides clients through every stage of the process, ensuring the delivery of high-quality, impactful solutions. His passion for innovation, deep technical expertise, and strong leadership skills have enabled him to drive the success of numerous XR projects and remain at the forefront of this rapidly evolving industry.

Work experience

XR Design and Development Consultant | Owner | 2007-01 - present
Founder

rayBLAST, LLC

- Founded rayBLAST in 2007 as an independent game development studio focused on creating immersive experiences for Nintendo DS and Wii platforms. Subsequently pivoted the company to adopt emerging technologies such as iOS, Android, and extended reality (XR).
- Served as Immersive Designer, Creative Director, and Lead Technologist, overseeing all product development and consulting engagements. Leveraged modern spatial design principles, learning theories, and game dynamics to deliver captivating, entertaining, and educational experiences.
- Conducted continuous research into the latest XR and related technological advancements, ensuring comprehensive knowledge of emerging trends within the industry.
- Performed in-depth analyses of gaming trends, including prevalent game mechanics and innovative content delivery strategies, to inform product design and development decisions.
- Provided strategic business consultations to clients seeking to develop XR products, offering expertise in establishing XR development pipelines and building high-performing teams.
- Facilitated the migration of Web 2.0 deployments to Web 3.0, incorporating Semantic Web technologies, artificial intelligence, and decentralized architectures.
- Developed immersive experiences across multiple XR platforms, including Meta Quest 2, Quest 3, Quest Pro, HTC XR Elite, Apple Vision Pro, Pico, and SteamVR.
- Proficient in industry-leading development and digital content creation tools such as Unity, Substance, Photoshop, Cinema4D, ZBrush, 3D Coat, Marmoset Toolbag, Character Creator, and Reason.
- Knowledgeable in blockchain platforms like Moralis and Tatum, enabling the integration of decentralized technologies into XR experiences.
- Cultivated and maintained strategic partnerships with industry leaders such as Steam, Meta, Magic Leap, HTC Vive, Nintendo, Google, AWS, Microsoft, and Apple.
- Researched and developed tools to streamline the integration of XR experiences, including xAPI plugins supporting multiple learning record stores (LRSs), custom systems for specialized tools, and tutorial managers with custom technical requirements.
- Fostered an environment that encouraged imaginative and creative problem-solving, consistently seeking innovative solutions to complex challenges.

Skills

XR Design and Development

Unity Pro for XR, Design Spec, Concepts, Spatial UI/UX, Unity Mars, Meta SDK, visionOS

Game Design and Development

Unity Pro for Games, Game Design and Mechanics, Character and Environment Concepts

Immersive Web

Needle Engine, WebXR

Programming

C#, TypeScript, HTML, CSS3, Node, Python

Digital Content Creation

Cinema4D, Maya, ZBrush, Substance, Photoshop, Illustrator, Redshift, Red Giant, After Effects, Rebelle, 3D Coat, Polycam, Pixyz, Reallusion

Traditional Art

Graphic Design and Layout, Illustration, Conceptual Character and Environment Design

Sound Design and Music

Reason, Sound Particles, Native Instruments, Cherry Audio, Akai, Guitar, Bass, Keys

Dev Tools & Environments

JetBrains, Visual Studio Code, XCode, Postman, Beyond Compare, Cmdr, Cyberduck, Charles

Version Control

git, GitHub, Bitbucket, Plastic SCM

CTO | Co-Founder

2023-01 - present

Elite XR, Inc.

- Co-founded Elite XR, Inc. and currently serve as the Chief Technology Officer (CTO), spearheading the development and coordination of cross-functional teams to create the EXR Platform - a cutting-edge Immersive Web platform for hosting XR experiences and user management.
- Develop and implement a strategic technology roadmap for the EXR Platform, driving innovation and ensuring the delivery of advanced features to meet evolving customer needs and market demands.
- Pioneered the implementation of XR analytics for immersive web and legacy distribution platforms, enabling data-driven insights and optimization of user experiences, resulting in enhanced engagement and customer satisfaction.
- Spearheaded the effort to achieve compliance with Software Development Life Cycle (SDLC) procedures and controls, contributing to the successful pathway for SOC2 Type II compliance utilizing the Drata platform, demonstrating a strong commitment to data security and privacy.
- Conceptualized and developed compelling demos and proof of concepts to showcase the transformative potential of XR technology in digital transformation initiatives, empowering colleagues and customers with the tools needed to visualize and harness the power of XR.
- Successfully delivered numerous POCs and demos to engage high-profile customers, including Tesla and Austin Energy, demonstrating the value and feasibility of XR solutions in real-world applications.
- Research, develop, and implement content development pipelines for cutting-edge technologies such as Gaussian Splats and software solutions like Pixyz for seamlessly translating CAD files into Unity-ready prefabs, enhancing the efficiency and quality of XR content creation processes.
- Crafted comprehensive technical aspects of customer proposals to support business development efforts, contributing to the successful acquisition of projects from Tesla, Austin Energy, and government entities in Saudi Arabia and Qatar.
- Provide guidance, mentorship, and support for the professional growth of developers, fostering a collaborative and innovative environment that encourages continuous learning and skill development.
- Maintain consistent and effective communication with stakeholders across all levels, ensuring clarity and alignment on project objectives, milestones, and deliverables, facilitating smooth project execution and successful outcomes.
- Diligently proofread and review all documentation and materials, ensuring the highest standards of accuracy, professionalism, and error-free presentation, reinforcing the company's commitment to quality and attention to detail.

Product and Project Management

 Agile/Scrum, Jira, Confluence, Drata

Hardware and Target Platforms

 Meta Quest 3, Quest Pro, HTC XR Elite, Apple Vision Pro, Android, iOS

Artificial Intelligence

 Perplexity, Unity Sentis, Hugging Face

Blockchain & Web3

 Moralis, Tatum

Data

 Mongo DB, PostgreSQL, JSON, APIs

Cloud Computing

 AWS, Google Cloud, Azure

Secretary of the Board

2023-01 - present

Elite XR, Inc.

- Record and maintain comprehensive minutes of board meetings, ensuring accurate documentation of discussions, decisions, and action items, providing a reliable record for future reference and accountability.
- Efficiently distribute meeting agendas, minutes, and other relevant documents to board members in a timely manner, ensuring well-organized communication and enabling effective preparation for meetings.
- Collaborate closely with the Chair to develop, implement, and maintain board policies and procedures, ensuring adherence to governance best practices and promoting effective decision-making processes.
- Maintain the highest standards of confidentiality and handle sensitive information with utmost discretion, demonstrating professionalism, integrity, and trustworthiness in all interactions with board members and stakeholders.
- Coordinate logistics for board meetings, including scheduling, venue arrangements, and technology setup, ensuring smooth and efficient operations that facilitate productive discussions and decision-making.
- Serve as a primary liaison between board members and external stakeholders, facilitating effective communication, fostering positive relationships, and ensuring that all parties are well-informed and engaged.
- Maintain a meticulous level of attention to detail in all administrative tasks, ensuring accuracy, completeness, and consistency in documentation, correspondence, and record-keeping, supporting the board's ability to make informed decisions.
- Proactively identify opportunities for improvement in organizational processes and systems, recommending and implementing appropriate solutions to enhance efficiency, effectiveness, and overall performance of the board's operations.

Aliya Financial

- Provided strategic leadership as the Chief Technology Officer at Aliya Financial Technologies, defining and executing the company's technology vision and strategy, ensuring alignment with overall business objectives and goals.
- Developed and managed a robust and scalable technology stack, leveraging cutting-edge tools and frameworks to deliver high-performance solutions that met the evolving needs of the company and its clients.
- Collaborated closely with executive management to plan and execute the technical direction of the company, delivering results that consistently met or exceeded board expectations and drove business growth.
- Oversaw internal technology roles and responsibilities, fostering a culture of cross-functional collaboration and ensuring the successful delivery of projects and initiatives across the organization.
- Established and managed the company's technology budget, optimizing resource allocation, maximizing cost-effectiveness, and ensuring the efficient utilization of financial resources to support key strategic initiatives.
- Built and maintained strategic partnerships with top Fintech companies, exploring new business opportunities, driving growth, and positioning Aliya Financial Technologies as a leader in the industry.
- Led the development and deployment of a production-level UI model for a leading national bank, enhancing their financial services capabilities and delivering measurable improvements in customer experience and operational efficiency.
- Researched and prototyped an innovative blockchain smart contract solution for data assets, demonstrating thought leadership, technological expertise, and a commitment to exploring emerging technologies to drive business value.
- Designed and diagramed multiple iterations of data pipelines, enabling seamless connectivity between financial institutions and solutions, facilitating the secure and efficient exchange of critical financial data.
- Provided mentorship and coaching to staff, fostering a culture of continuous learning, professional growth, and development, ensuring that the technology team was equipped with the skills and knowledge needed to excel in their roles.
- Ensured strict compliance with Software Development Life Cycle (SDLC) procedures and controls, contributing to the successful completion of SOC2 Type I and SOC2 Type II audits and demonstrating a strong commitment to data security and integrity.
- Collaborated closely with the Chief Information Security Officer and DevOps team to ensure the successful completion of security audits and the implementation of secure practices across the organization, safeguarding sensitive financial data and maintaining the trust of clients and partners.

Senior Software Engineer

2015-07 - 2016-09

Aliya Financial

- Collaborated closely with engineering leadership to design, develop, and maintain software applications aligned with Aliya Financial Technologies' business objectives, ensuring the delivery of high-quality solutions that met the needs of the organization and its clients.
- Played a pivotal role in providing back-office support, facilitating the smooth progress of the engineering team's tasks and projects, and ensuring the timely completion of deliverables.
- Developed robust and user-friendly mobile applications for iOS and watchOS platforms using Swift and Objective C, leveraging industry best practices and adhering to Apple's design guidelines to deliver exceptional user experiences.
- Created responsive and visually appealing web applications using Angular (HTML5, JS, CSS3), ensuring cross-browser compatibility and optimal performance across a range of devices.
- Prepared detailed epics, stories, and tasks for each feature, breaking down complex requirements into manageable work assignments, and ensuring clear communication of expectations to the development team.
- Organized and assigned tasks to the appropriate development resources, taking into account individual strengths, workload, and project timelines to optimize productivity and ensure the successful completion of projects.
- Actively participated in Sprint Planning, Stand-ups, and administered Jira projects, leveraging agile methodologies to ensure effective project management, communication, and collaboration among team members.
- Provided regular updates on developers' progress and addressed inquiries from the Product team, offering technical knowledge and insights to support informed decision-making and ensure alignment with business goals.

- Prepared comprehensive documentation, wireframes, and instructions, and conducted one-on-one tutorials to assist team members with technology-related challenges, fostering a culture of continuous learning and knowledge sharing.
- Managed the provision, purchase, and setup of developer software and devices (e.g., Macs, mobiles), ensuring that the development team had access to the necessary tools and resources to work efficiently and effectively.
- Administered and organized GitHub repositories, implementing version control best practices and facilitating seamless collaboration among team members.
- Managed Apple iTunes Connect, TestFlight, and Apple Developer Portal for multiple iOS projects, ensuring smooth app deployment, updates, and adherence to Apple's guidelines and review processes.
- Administered Google Play Store and Developer Portal for Android projects, ensuring timely and accurate app releases and managing the app lifecycle from development to publication.
- Facilitated the orientation and onboarding of new developers, providing necessary tools, resources, and guidance to ensure their successful integration into the team and contribution to project goals.
- Actively participated in meetings that directly impacted timelines and development tasks, offering valuable insights, suggestions for improvement, and collaborating with stakeholders to drive project success.
- Conducted thorough code reviews and provided constructive feedback to enhance code quality, maintain best practices, and ensure the development of maintainable, scalable, and efficient software solutions.

Software Engineer Firmware III

2012-07 - 2015-07

Hewlett Packard

- Collaborated closely with colleagues in Hewlett Packard's R&D group to develop multiple features for the company's flagship server edge solution products, including Virtual Connect and HP OneView (Fusion), contributing to the enhancement and expansion of these industry-leading offerings.
- Designed and developed intuitive and user-friendly interfaces for server edge solution products, ensuring a seamless and intuitive experience for customers, adhering to best practices in user experience (UX) design, and aligning with Hewlett Packard's brand guidelines.
- Played a key role in defining new product features and requirements, contributing valuable insights and expertise to the overall product roadmap and strategic direction, ensuring that solutions remained competitive and met the evolving needs of the market.
- Actively participated in development planning, scheduling, and software architecture discussions, leveraging industry-standard methodologies and best practices to ensure efficient and effective project execution, timely delivery, and high-quality outcomes.
- Conducted thorough inspections and provided valuable input on investigations, designs, and implementations of key Virtual Connect features, ensuring that deliverables met the highest standards of quality and performance.
- Worked closely with other Virtual Connect engineers, fostering a collaborative environment and leveraging collective expertise to develop new features, address bugs in the user interface (UI), and enhance the overall functionality and usability of the product.
- Utilized the SCRUM methodology to collaborate effectively with feature team members, participating in sprint planning, scheduling, and software requirements discussions, facilitating efficient project management and ensuring alignment with project goals and timelines.
- Coordinated software development efforts with the UX team, utilizing Balsamiq mockups and requirements to ensure seamless integration between design and implementation, resulting in a cohesive and visually appealing user experience.
- Collaborated closely with other HP OneView engineers to develop new features and address bugs in the UI, ensuring a seamless and intuitive user experience that met the needs of customers and aligned with industry best practices.
- Architected and implemented frontend UI/UX for prototype switch products, leveraging industry best practices in user interface design, ensuring high performance, reliability, and adherence to Hewlett Packard's quality standards.

Mobile Developer | Senior Engineer | Product Manager

2010-01 - 2012-04

Buzz Points (fisoc, Buzz Banking)

- Joined Buzz Points as the first official hire, playing a pivotal role in the company's transition from its inception to a merchant offers solution for financial institutions,

contributing valuable expertise and insights to support the company's growth and evolution.

- Designed and implemented a robust and scalable native mobile client architecture in Objective-C for the iOS app, enhancing its functionality, performance, and overall user experience, ensuring a seamless and engaging experience for users.
- Pioneered the implementation of Augmented Reality (AR) technology in the original iOS app, leveraging cutting-edge innovations to create immersive and interactive experiences for users, setting Buzz Points apart from competitors and demonstrating a commitment to innovation.
- Collaborated closely with the CTO and Senior VP of Sales, fostering open communication and ensuring that product requirements aligned with stakeholder priorities, contributing to the successful development and launch of multiple product lines that met the needs of the market and drove business growth.
- Led the product design and user experience efforts across all product lines, leveraging expertise in the gaming industry to create engaging, intuitive, and visually appealing interfaces for web and mobile platforms, enhancing user satisfaction and driving increased adoption and usage.
- Designed and developed a high-performance frontend API layer using technologies such as Spring, optimizing performance and ensuring seamless integration with backend systems, enabling efficient data exchange and supporting the delivery of a seamless user experience.
- Developed a responsive and visually appealing web app client architecture using HTML5, CSS3, and JavaScript, ensuring cross-browser compatibility and optimal performance across a range of devices, providing users with a consistent and engaging experience regardless of their platform.
- Managed the Apple submission process and app updates in iTunes Connect, ensuring compliance with guidelines and timely releases, maintaining a strong presence in the App Store and providing users with access to the latest features and improvements.
- Produced an innovative Augmented Reality prototype within three days, showcasing technical expertise and a commitment to delivering cutting-edge solutions, which played a pivotal role in securing a major series funding deal for Buzz Points, enabling the company's continued growth and expansion.
- Contributed to redesigns that significantly improved user engagement by 250%, leveraging user feedback and data-driven insights to enhance the overall user experience, driving increased usage and customer satisfaction.
- Filed a software patent for "Speed and topology relevant dynamic geo search" (US20140094197 A1), demonstrating innovative thinking, technical expertise, and a commitment to advancing the state of the art in the field, further solidifying Buzz Points' position as a leader in the industry.

Game Development Consultant

2005-08 - 2011-01

Clients

Edioma

- Delivered high-end gamification concepts and solutions for Edioma's edigo web B2B language training product line, collaborating with brands such as 7-Eleven and Movil sin Barreras, enhancing the learning experience and driving user engagement.
- Developed a computer-based training (CBT) version of the edigo web product based on 7-Eleven's corporate requirements and specifications, ensuring alignment with the client's needs and delivering a tailored solution.
- Installed, managed, and extended numerous Drupal installations on development and production servers, ensuring smooth operations and optimal performance of the content management system.

Hudson Entertainment

- Worked directly with the Director of Marketing, Marketing Specialist, and Game Producers at Hudson Entertainment to fulfill the requirements for game promotional websites, ensuring alignment with marketing strategies and brand guidelines.
- Developed engaging and visually appealing website solutions for titles such as Bomberman Ultra, Deca Sports, Marble Saga Kororinpa, and Fishing Master World Tour, enhancing the online presence and promotional efforts for these games.
- Responsible for delivering high-quality, engaging web banner ads using ActionScript, developed according to multiple outlet specifications for titles such as Deca Sports, Alien Crush Returns, and Bomberman Ultra, driving traffic and increasing brand visibility.
- Provided commercial-quality graphical assets as needed, ensuring consistency and visual appeal across all promotional materials.
- Notable Accomplishment: Collaborated with the Director of Marketing and Graphic Designer to create the Deca Sports website, resulting in a product launch that performed

15 times over forecast, the largest and most successful in Hudson Entertainment's company history, demonstrating the impact of effective web design and marketing strategies.

O3 Entertainment

- Worked directly with the CEO and Product Marketing Manager at O3 Entertainment, Inc. to establish the requirements for game websites, ensuring alignment with business objectives and target audience preferences.
- Developed website solutions for titles such as Konductra, Chaos Wars, Tank Beat, Radio Allergy (Radirgy JPN), and Dark Light, creating engaging online experiences that effectively promoted these games.
- Provided consultation on the best solutions for providing game content online, leveraging expertise in web design and user experience to optimize the delivery of game-related information and assets.
- Designed all game print collateral, packaging, and label design according to Nintendo and Sony Playstation specifications, ensuring compliance with platform guidelines and creating visually appealing physical media.

Grind Games

- Created concepts and finalized art assets for titles such as Heads Up Texas Hold'em, Heads Up Texas Hold'em 2, Grind Street Domino Network, and Cingular Shuffleboard, contributing to the visual identity and overall aesthetic of these games.
- Detailed UX concepts for title, profile, and play screens on multiple Java handset models such as Danger Incorporated's Sidekick II and Sidekick III, ensuring intuitive and user-friendly interfaces across different devices.

oeFun, Inc.

- Worked closely with the CEO to establish the requirements for character concepts and backgrounds at oeFun, ensuring alignment with the company's creative vision and target audience preferences.
- Created concepts and finalized art assets for Konductra (Nintendo DS) and working titles, contributing to the visual identity and overall aesthetic of these games.
- Provided sound design services for multiple sound effects for Konductra, enhancing the auditory experience and immersion for players.
- Created and delivered puzzle designs for the puzzle game mode in Konductra, ensuring engaging and challenging gameplay experiences.
- Worked directly with the Lead Game Designer to conceptualize and storyboard experimental gameplay for Wii, exploring innovative ideas and pushing the boundaries of interactive entertainment on the platform.

Art & Media Director | Senior Graphic Designer 2000-01 - 2005-02

Conn-Selmer, Inc.

- Joined Conn-Selmer, Inc. as a Senior Graphic Designer for United Musical Instruments, leveraging exceptional design skills and creativity to develop visually compelling marketing materials and enhance the company's brand identity.
- Played a pivotal role in the successful merger between United Musical Instruments and Bach Brass, demonstrating strong leadership and adaptability, resulting in a promotion to Art & Media Director, becoming the youngest individual to hold this position in the company's history.
- Spearheaded the development of a wide range of marketing and sales collateral, including product advertisements, brochures, multimedia presentations, and booth graphics, ensuring a consistent and visually appealing brand image across all touchpoints.
- Collaborated closely with multiple product managers to establish web development requirements and updates, effectively incorporating their feedback and needs to deliver user-friendly and informative online experiences.
- Managed and directed the in-house creative team, fostering a collaborative and innovative work environment that encouraged creative problem-solving and the development of high-quality design solutions.
- Established and maintained strong relationships with contract photographers, ensuring the production of high-quality product photography for use in various marketing materials, enhancing the visual appeal and effectiveness of the company's promotional efforts.
- Oversaw relationships with printers and production vendors, leveraging strong negotiation and project management skills to ensure the timely and cost-effective production of printed collateral, optimizing the company's marketing budget.
- Managed equipment and software updates, proactively submitting yearly requests for the marketing department's budget consideration, ensuring that the creative team had

access to the latest tools and technologies to deliver cutting-edge design solutions.

- Collaborated with the VP of Marketing to develop an innovative new instrument case for band instruments, resulting in a patent listing as a co-inventor (US20060060060), showcasing a commitment to product innovation and continuous improvement.