

Erick Watanabe

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Core Competencies

Curriculum Development • Instructional Design (ADDIE) • Learning Assessment Design • Accessibility (WCAG 2.1) • Educational Technology • LMS Management • AI-Powered Learning Tools • Data-Driven Learning Analytics • Adult Learning Theory • Blended Learning • Interactive Media Development

TECHNICAL SKILLS

Learning Technologies | 7 years managing course delivery in Brightspace (D2L) & Blackboard, xAPI/SCORM standards, authoring tools, learning analytics, interactive media development

Development Tools | JavaScript ES6+, TypeScript, React, Tailwind CSS, HTML/CSS

PROFESSIONAL EXPERIENCE

Staff Scientist | Blue Marble Space Institute of Science 2025

- Designed intuitive data exploration interface ([link](#)) enabling researchers to search 3,000+ microbial samples using color-coded, multi-term filtering with pre-programmed search scaffolds that guide users through complex queries without requiring training
- Apply instructional design principles to create accessible interfaces that enable technical and non-technical NASA scientists to leverage AI-powered data curation tools effectively
- Implemented **accessibility-first** development practices (WCAG compliance, ARIA labels, keyboard navigation) ensuring inclusive design for all users across diverse abilities and assistive technologies
- Built NASA's AI-powered learning systems including LLM integration, knowledge retrieval interfaces, chatbot functionality, and combining technical development skills with user-centered design principles

Full Stack Engineer Contractor | Valter Tennis | [Link](#) | *Next.js, Firebase, TypeScript* 2024

- Designed and developed user-centered platform enabling tennis coaches to create personalized learning environments for clients, implementing intuitive booking workflows, responsive interfaces (54% mobile usage), and accessibility features (keyboard navigation, semantic HTML) that reduced barriers to engagement for diverse learner populations

Visiting Assistant Professor of Math & Physics | Loyola Marymount University 2017 - 2022

- Designed and delivered comprehensive STEM curricula for 200+ undergraduate students annually across multiple courses, utilizing backward design to align learning objectives, assessments, and instructional activities
- Managed complete course delivery through Brightspace LMS including syllabus distribution, assignment workflows, quiz creation, discussion facilitation, grade tracking, and multimedia content integration
- Applied learning analytics to drive curriculum improvements and created multimodal instructional materials (videos, demonstrations, simulations, polls, online tools) to accommodate diverse learning styles and maximize engagement

EDUCATION

Hack Reactor | Advanced Software Engineering Certificate 2023

California State University, Long Beach | M.A. Experimental Physics 2016

The University of California, Merced | B.A. Physics 2011