Melissa Casole

UX/UI Designer + Engineer

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About Me

AI-driven UX Design Leader with 20+ years of experience across healthcare, cybersecurity, and enterprise SaaS. My current focus is advancing **AI-powered interaction design**—leveraging tools like **Cursor, Figma Make, and Lovable** to accelerate prototyping, streamline workflows, and create adaptive, human-centered experiences.

I have scaled design systems, led global teams, and delivered native mobile and enterprise platforms balancing usability, performance, and accessibility. By working closely with development leaders and applying hands-on expertise in HTML/CSS/JS and WCAG standards, I bridge design and engineering, while using Figma, ProtoPie, and AI tools to deliver highly functional prototypes that are tested with users—reducing discrepancies between design and production.

Passionate about mentoring and stakeholder alignment, I thrive on turning complexity into clarity and making design a driver of product excellence.

Professional Experience

Sr Designer and UX Manager | Sept 2020 – Present
First Advantage

- Supported agile development processes by participating in sprint planning, stand-ups, and backlog refinement sessions to align design deliverables with business priorities.
- Applied analytics tools such as Google Analytics, Hotjar, and Microsoft Clarity to evaluate user behavior, validate design decisions, and identify opportunities for optimization.
- Leveraged storytelling through sketches, comps, and prototypes to communicate design recommendations effectively to stakeholders and executives.
- Collaborated with product managers, developers, and business analysts to translate research insights and analytics into enhanced information architecture and improved navigation.
- Developed responsive designs across multiple platforms including web and mobile, ensuring ADA compliance and accessibility standards were upheld.
- Created user personas, empathy maps, and journey maps to capture behavioral insights and align cross-functional teams around user-centered goals.
- Applied expertise with Adobe Creative Suite, Sketch, Axure, and Figma to create design artifacts, wireframes, and prototypes, ensuring alignment with user needs and business goals.
- Designed and facilitated moderated and unmoderated usability studies, incorporating findings into iterative prototypes to refine workflows and improve usability.

- Sketched and wireframed user flows and low-fidelity concepts to communicate design ideas clearly to stakeholders and developers, accelerating feedback and iteration cycles.
- Led comprehensive UX research initiatives including creating research plans, conducting stakeholder and user interviews, and synthesizing findings into actionable insights that informed design decisions.
- Defined and scaled the company's first and third design system design direction, integration strategy, reducing UI debt and aligning over 150 components across React, Angular, Vue and Web.
- Hired, mentored, and led a multi-disciplinary design team focused on UX excellence and design ops maturity.
- Partnered with engineering and product leaders to align design system sprints with engineering deliverables, increasing velocity and reducing rework.
- Introduced AI-assisted prototyping and automation tools to increase design fidelity and speed up developer handoff.
- Drove adoption of cognitive science-informed UX principles to improve usability, reduce friction, and increase user satisfaction across enterprise workflows.

Contract Senior UX Designer | Mar 2020 – Sept 2020
Motivus (formerly Agile Thought)

- Conducted stakeholder and end-user interviews to define user needs and translated insights into wireframes and low-fidelity prototypes that aligned with business goals.
- Applied responsive design principles to ensure web applications functioned seamlessly across desktop, tablet, and mobile environments.
- Delivered responsive, high-fidelity prototypes using ProtoPie and Figma.
- Conducted user research to inform journey maps, personas, and feature flows.
- Worked closely with business analysts and PMs to translate data insights into actionable UI solutions.

UX Engineer | Oct 2018 – Mar 2020
Mediagistic

- Developed personas and journey maps based on research and analytics data to guide UX strategy for AI/ML-driven ad delivery software.
- Collaborated with developers to resolve layout and functionality challenges, ensuring ADA compliance and usability best practices were met.
- Designed and prototyped AI/ML-driven software for dynamic ad delivery.
- Bridged design-to-dev handoff by developing front-end prototypes in HTML/CSS/JS.
- Led and created marketing deliverables with Figma and After Effects.

Senior UX Designer | May 2017 – Oct 2018
Inspirata

- Facilitated moderated usability studies with pathologists to validate early-stage concepts for cancer diagnostic software.
- Created detailed information architecture and navigation flows to improve efficiency in digital prognostic workflows.

- Designed digital cancer diagnostic software for pathologists that leveraged AI/ML workflows.
- Worked alongside data scientists and engineers to understand best implementation methods between analog and digital prognoses.
- Conducted formative testing to uncover and solve workflow bottlenecks.
- Designed UI and built the front-end code that was later used in collaboration with the lead front-end engineer.

Lead UX Designer | Jun 2016 – May 2017
MarineMax

- Led user research sessions with sales teams and retail staff to identify workflow bottlenecks, directly informing POS design improvements.
- Produced wireframes, sketches, and prototypes to communicate design ideas and accelerate buy-in across business and technology stakeholders.
- Created the company's first design system and improved customer retention by 80%.
- Designed POS software adopted across 100+ retail locations, increasing satisfaction by 85%.

Education & Certifications

- B.S. in Computer Science & Design, Missouri College, 2007
  Minor: Cognitive Psychology
- Certificate: Human Factors for Medical Devices (AAMI, 2024)
- UX Design Certification - Google, 2020
- Human-Computer Interaction - MIT, 2019

Core Skills & Tools

AI in UX & Emerging Tech

- AI-augmented design, prototyping & workflow generation
- Prompt design for UX and AI integration
- GenAI tools: Lovable · Figma Make · Cursor · Claude
- Applied cognitive psychology + AI for human-centered design

Design Systems & Prototyping

- Design systems: Component creation · Figma variables & tokens
- ProtoPie & ProtoPie Studio for advanced interactions
- Unity & hardware-software prototyping

Advanced Hardware Integration

- Arduino with assisted C++ integration for medical camera prototypes
- Cross-platform integration of Arduino boards and sensors to create UX prototypes

Front-End & Accessibility

- HTML · CSS · jQuery

- WCAG accessibility compliance · FDA/ISO standards

UX Strategy & Leadership

- Behavioral UX & Cognitive Psychology applied to design
- UX research & testing
- DesignOps & cross-functional leadership
- Designer mentorship to advanced skills and methods
- Project management, process and protocol enhancement to improve implementation practices across teams