Nathan Haynes-Magyar

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Educational technology designer, developer, and entrepreneur with an instinct for creating simple, intuitive, and delightful user experiences that meet learner needs and achieve business goals

Development Skills: Python/Django, Ruby/Rails, JavaScript/VueJS, HTML, CSS
Research Skills: Usability Testing, Protocol Development, Survey Design, Focus Groups, User Interviews
Project Management Skills: Project Scoping, Stakeholder Management, Public Speaking
Design Skills: Prototyping, Wireframing, Personas, Illustration, Logo Design, Brand Development
Foreign Languages: Spanish (Advanced), French (Intermediate), Korean (Novice), Italian (Novice)

Experience

Founder, UX Designer, Developer
January 2020 - Present
Twirlmate • Figma, Illustrator, Python/Django, VueJS, HTML, SCSS *Pittsburgh, PA*

Designed and developed the database architecture (PostgreSQL) for a multi-vendor marketplace application (Django/Stripe/VueJS) that allows users to create, manage, and register for competitive baton twirling events.

Identified and seized opportunities to **enhance database query performance** before, during, and after feature releases to maintain a high quality user experience (Django ORM).

Implemented **in-platform and email-based** notifications for users to receive timely updates on relevant platform activity from other users.

Leveraged ApexCharts.js to build an **e-commerce dashboard** for event organizers so they could track key metrics such as volume and type of participants, number of registrations and their current status, etc.

Co-Founder, UX Designer, Developer
January 2021 - Present
Codespec • Figma, Illustrator, Python/Django, VueJS, HTML, SCSS *Pittsburgh, PA*

Designed and developed a **scaffolded programming practice interface** (CodeMirror/VueJS) where learners can solve problems using block-based or custom-written code and receive unit test feedback. The result is a learning experience that supports learners at a variety of skill levels and maximizes agency/autonomy.

Conceptualized, designed, and developed **clickstream analytics tools** to understand learner behavior during the problem solving process, creating the ability replay and compare learner choices for research (Django).

Implemented **e-book authoring functionality** that supports a variety of page content (text, rich media, surveys, problems, and questions). Authors can also apply/manage time limits for a given page/learner to ensure sound research design.

Adhered to Test Driven Development best practices while building **role-based permissions for API endpoints**.

Lead Software Developer
April 2023 - Present
University of Michigan Center for Academic Innovation • Rails, VueJS, HTML, SCSS *Ann Arbor, MI*

Leads an interdisciplinary team of designers, developers, and behavioral scientists on Spire, a competency-based learning web application that serves over 3,000 students across 3 schools at the University of Michigan. Recently launched a new feature that helps students map skills gained from courses to desired career paths.

Supervises 4 junior- and senior-level software developers, providing bi-annual performance reviews and professional development guidance to **support, energize and grow software development team skills**.

Defined promotion criteria for the software developer career pathway at the organization.

Collaborated with fellow developers to **migrate a learning management system from LTI (learning tools interoperability) 1.1 to 1.3,** requiring new knowledge of LTI/OpenID Connect authentication to design new database models and multi-step backend functions for handling both new and existing LTI users.

Senior Software Developer
University of Michigan Center for Academic Innovation • Rails, VueJS, HTML, SCSS

May 2021 - March 2023

Ann Arbor, MI

Led the VueJS development of Spire's pilot release over the course of 3 months, launching to 800 users.

Planned a years-long effort to **migrate core features written in legacy Angular 1 code to VueJS**, and executed the plan in coordination with Frontend Developers and QA Analysts.

Reviewed pull requests of fellow developers and designers to ensure projects maintain a standard of high-quality, readable, reusable code.

Optimized Ruby on Rails Active Record queries to improve site performance and user experience.

Senior UX Designer
University of Michigan Center for Academic Innovation • Sketch, InVision, VueJS, HTML, SCSS

January 2019 - April 2021

Ann Arbor, MI

Conducted focus groups with university students and **assembled click-by-click prototypes** for Michigan Online, the University of Michigan's online learning experience catalog. As of October 2024, the platform contains over 300 learning experiences and more than 200,000 people have created accounts.

Redesigned and implemented the frontend for Problem Roulette's practice exam interface using VueJS and SCSS, improving visibility of system status and interactivity for learners.

Intermediate UX Designer
University of Michigan Center for Academic Innovation • Sketch, InVision, VueJS, HTML, SCSS

November 2017 - December 2018

Ann Arbor, MI

Teamed up with learning experience designers to **identify feature gaps** in Coursera and edX, **generate and prioritize ideas** to fill those gaps with LTI (learning tools interoperability) plug-ins, and collect design feedback on prototypes, leading to a suite of tools now used by thousands of learners on Coursera and edX.

Collaborated with a backend developer to translate Michigan Online designs into technical requirements. Personally handled the HTML and Jinja templating, SCSS, and JavaScript development.

Worked closely with a student fellowship coordinator to **create a fun, enriching, inclusive experience for student employees**, including an end-of-summer campus-wide scavenger hunt and team bonding retreat.

Education

Master of Science in Information: Human-Computer Interaction (4.0)
University of Michigan School of Information

Bachelor of Arts in Organizational Studies and Spanish (3.9)
University of Michigan College of Literature, Science & Arts

Bachelor of Fine Arts in Performance Acting (3.9)
University of Michigan School of Music, Theatre & Dance