Adam J. Arling

Chicago, IL, United States · aarling@gmail.com · (312) 371-8829 · in/adamjarling/ · github.com/adamjarling

SUMMARY

Senior Front End Developer with 20 years of experience in React, TypeScript, JavaScript, and building scalable web applications. Deep understanding of component-based architecture and extensive knowledge of modern front end frameworks and libraries. Excited to leverage expertise in creating exceptional user experiences, lead development teams, and drive innovation in front end development.

EXPERIENCE

Senior Front End Developer / Manager
Northwestern University Libraries   April 2017 – Present, Evanston, IL / Remote

- Planned, designed, built and currently maintain 8+ production, API-driven JavaScript/React applications for open-source, repository-based projects in the cultural heritage space. Tech Stack(s): NextJS/React/TypeScript/Elixir Phoenix/REST | GraphQL/RadixUI/Jest/Cypress/Playwright.
- Publish open-source NPM React/JavaScript component libraries using Vite, Rollup, ESBuild, Github Workflows.
- Prototype chat-based User-Interfaces using OpenAI API/Weaviate/LangChain for Digital Collections discovery.
- Research new technologies, front-end architectures, and strategize unit and integration testing.
- Created accessible, responsive site layouts and wire-framing, HTML, CSS and W3C best practices and standards.
- Represented the web team at 10+ international Library tech conferences, presenting our team's open-source work, milestones and implementations.

Senior UI Developer
Front Edge Digital Consulting   January 2014 – January 2017, Chicago, IL / Remote

- Refactored and optimized Morningstar Investment's User Registration module using Adobe Experience Manager, HTML, JSP, CSS/Sass, JavaScript/Angular, and Jasmine.
- Boosted user registration numbers 30% through streamlined navigation, improved UX flow, and async/dynamic form refactor with Morningstar's Dot Com team.
- Developed, coded and updated Customer Relationship Management web applications in AngularJS for clients Hitachi Data systems and FPX.
- Introductory mobile iOS development on an inventory tracking application built with Swift.

Lead UI Developer
Film Independent   January 2013 – June 2015, Los Angeles, CA

- Collaborated with the Marketing Director on project specifications, strategy and execution to build PHP WordPress custom themes, templating and user registration systems.
- Created and updated re-usable code libraries to streamline WordPress development cycle.
- Automated and implemented backup and recovery procedures for all WordPress system that resulted in improved system confidence.

PHP Web Developer
RentReporters.com   January 2013 – January 2014, Los Angeles, CA

- Built the front-end registration system for RentReporter's FinTech application using PHP, HTML, CSS, JavaScript, and PHP CodeIgniter framework.
- Integrated APIs such as EVS, RightSignature, IDSafeLock and RendPaidOnline into the onboarding experience.
- Collaborated with a marketing team to deliver wireframes, style guides, and responsive solutions to product owner and stakeholders.
- Delivered monthly presentations and product demos to investors.

Front End Developer
Manifest Digital   January 2011 – January 2013, Chicago, IL

- Developed Microsoft .NET and Sharepoint sites for corporate clients such as Mattel (Barbie), AON, Underwriters Laboratories, Zebra Printers, National Restaurant Assoc, American Dental Association and more.
- Developed user-oriented visuals and features using front-end languages, including HTML, CSS and jQuery for CMS template building.
- Collaborated with in-house designers, translating Adobe Photoshop/Illustrator comps to pixel-perfect HTML/CSS/JS apps.
- QA Testing and performance troubleshooting prior to deployments.

WordPress Developer
Harrington Communications   January 2005 – January 2011, Chicago, IL

- Directed WordPress custom theme development across a 4-member development team while remaining focused on meeting client needs for functionality, timeline and performance.
- Designed and implemented 30+ websites from initial concept, site architecture and wire frames to finished deliverable.

- Converted design assets into component-based PHP, CSS and JavaScript.
- Created and updated re-usable code libraries to streamline WordPress development cycle.
- Collaborated with design and project developers to understand project scope and offer elegant, creative and scalable solutions for small businesses.

PROJECTS

Digital Collections
Northwestern University Libraries · https://dc.library.northwestern.edu/ · January 2021 - Present
- Launched Digital Collection v2 in 2023. Refactored the primary discovery application for scholars, researchers and course-access to over 204,000 Works across 193 Collections in NUL's digitized archives.
- Architected tech stack in NextJS, Radix UI, TypeScript, Stitches.dev, IIIF APIs, OpenSearch, Jest + TestingLibrary and maintain continuous integration staging/production deployments in AWS Amplify.
- Planned, managed and executed the project over 12 months from early-stage wire-framing, user-testing, requirements gathering and monthly Library open process demos.

Clover IIIF Front End Toolkit
Northwestern University · https://samvera-labs.github.io/clover-iiif/ · January 2022 - Present
- Co-developer of React component library featuring 15+ exports designed for digital humanist developers composing modular IIIF (International Image Interoperability Framework) web applications.
- Focus on exceeding accessibility standards, Developer experience (DX), and clear, easy to read documentation.
- Built with: React, TypeScript, Vite (bundling/packaging), Nextra (documentation wrapper), Vitest, CSS in JS, and RadixUI.

Livestream Event Platform
Zuma Live · https://www.zuma.live/ · January 2021 - December 2023
- Architected a full-stack, livestream video platform connecting independent music venues, artists and digital concert attendees for 75+ events.
- Built an authenticated, multi-user tier administrative back-end to manage livestreams, customers, payments, venues, artists, billing, and real-time revenue forecasting / graph visualizations for over 2500 customers.
- Back end: Supabase (AWS Wrapper) for DB Schema, PostGres DB, Authorization handling and file storage. Hosting/CI with Vercel.
- API middle layer on Next's server side, serving to normalize and organized data between Stripe, Postgres and Auth.
- External APIs: Stripe, Supabase's DB and Auth APIs, Vimeo, SendGrid, Sentry.
- Front end: React/TypeScript, NextJS, Sentry, React Query, ChakraUI, TailwindCSS, ChartJS.

Trade-r - Cryptocurrency price forecasting tool
Trade-R · https://trade-r.com/ · January 2020 - Present
- Built a trade forecasting/tracking system for cryptocurrency trading, providing individual and dashboard alerts when Stop trigger prices exceed user-defined thresholds.
- Supports 8 global currency pairs (ie. BTC/USD, BTC/GBP, etc), and provides real-time crypto pricing information for end users for the top 100 market cap coins (BTC, ETH, etc).
- Built with React, Firebase, FireStore, ReCharts, and BulmaCSS.

Speculative Annotations - Library of Congress Labs
Library of Congress · https://labs.loc.gov/work/experiments/annotation/ · June 2021 - January 2022
- Lead Developer for "Speculative Annotations" Library of Congress Labs Artist in Residency project 2021.
- Created an interactive web experience for high-school students to annotate curated Digital Works from LOC archives. Students can draw, stamp, highlight, annotate, pose questions, type text, on a deep zoom canvas of the image. They can further save their annotations and share with friends/teachers/classmates.
- Built with: FabricJS, React, OpenSeadragon, ChakraUI, EmotionCSS, Jest and TestingLibrary.

EDUCATION

Master of Science in Applied Computer Science
Illinois State University · US, IL, Normal · 2001
- Graduated top 10% of class
- Masters Thesis & Project: "Online Graduate Course Planning System in .ASP and .NET"

Bachelor of Science in Economics and Sociology
University of Illinois Urbana Champaign · Urbana, IL · 1997
- Graduated Cum Laude
- Member of Phi Kappa Psi fraternity

· Member of campus arts council

CERTIFICATIONS

AWS Certified Cloud Practitioner
Amazon Web Services · 2023
· Foundational knowledge and solid understanding of AWS cloud concepts, services, and terminology, which is valuable for various roles in and outside of IT.
· Improved communication with technical teams and customers by understanding cloud basics and terminology.
· Enabled to make more informed decisions related to cloud adoption and resource allocation within your organization.

Career Essentials in Generative AI
Microsoft · 2023
· Foundational knowledge of generative AI best practices in a development environment

Blockchain: Hyperledger essentials – IBM Developer certification
IBM · 2021
· Understanding of Hyperledger in business application

INVOLVEMENT

Recent Conference Presentations
Northwestern University Libraries
· "Canopy IIIF: Remix Digital Assets From Cultural Heritage Repositories" – Open Repositories 2024 – Göteborg, Sweden. Presentation.
· "IIIF Commons 2023 highlights" – IIIF Conference 2023 – University of Naples Federico II – Naples, Italy. Led workshop highlighting recent contributions to open-source, component library releases for IIIF community.
· "Front End Theory" – IIIF Conference 2023 – Harvard / MIT – Cambridge, MA USA. Co-presented on API driven, IIIF spec architecture theory in building both local, and open-source community modules.

Writer
Medium.com
· "Mocking a React Router match object in your component tests" – 28K views.
· "Using React Hook Form in component tests" – 25K views.
· "Create flexible functions using TypeScript generics" – 10.6K views.
· "Catch TypeScript Errors in Next.js Before Building Your App" – 9.1K views.
· "Build and Package an NPM Component with esbuild, React and TypeScript" – 8.1K views.

SKILLS

Front End: HTML, CSS, React, JavaScript, TypeScript, NextJS, Vite, OpenAI API, REST API, GraphQL, Headless CMS, Contentful, Webpack, Rollup, ESBuild, HTML5, NPM packaging & distribution, Component libraries, Chrome DevTools, React DevTools, Chakra UI, Radix UI, Material UI, Nextra (NextJS documentation solution), Git / Gitflow, Zenhub, Github Projects, TailwindCSS, PostCSS, CSS / Sass / LESS / CSS in JS, W3C Accessibility standards and strategies, Mobile/Responsive Design, Code Quality best practices (Prettier, ESLint, Husky, Pre-commit hooks), Application Performance Monitoring APM (Honeybadger, Sentry)

Testing: Jest, Vitest, Cypress, Playwright, @testing-library, Mocha

Project Management: Agile Development, Scrum, Manage distributed projects, Distributed Team Environment, Documentation focused, Async work structure.

Continuous Integration: Github Actions and Workflows, Vercel, AWS Amplify

Design/Creative: Adobe Photoshop, Adobe Illustrator, Adobe InDesign, Figma, Adobe XD, Lucid Charts (ERD modeling, application flow), Adobe Premier Video Editing, Logic Audio Production.

Back End: (Moderate exposure/familiarity) AWS Services, PostGres, NodeJS, Express, NextJS Server-side environment