

# ADAM J. ARLING

LEAD FRONT END ENGINEER



## CONTACT

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## EDUCATION

**Master of Science in Applied Computer Science**  
*Top 5% graduating class*  
Illinois State University  
Normal, IL USA

**Bachelor of Science in Economics and Sociology**  
*Cum Laude*  
University of Illinois  
Champaign / Urbana, IL USA

## SKILLS

**Languages**

- JavaScript
- TypeScript
- HTML
- CSS, Sass, Styled Components, CSS in JS
- PHP
- Solidity (learning)

**Libraries**

- React
- Angular.js
- Radix UI
- Framer Motion
- React Hook Form
- D3 / Plotly.js

**Frameworks**

- Next.js
- Supabase
- Gatsby
- Angular.js

**Testing**

- Jest
- Vitest
- Playwright
- Cypress
- @Testing Library

**CI / CD**

- GitHub Actions and Workflows
- Vercel CLI
- AWS Amplify

## PROFESSIONAL PROFILE

Front End Engineer with 16+ years experience in building scalable, API-driven web applications using React, JavaScript and TypeScript. Has a deep understanding of component-based architecture, creating reusable UI building blocks that promote consistency and maintainability. Firm belief in a user-centric approach, crafting seamless interactions and striving for elegant and performant solutions. Skilled at making complex ideas relatable and inclusive for all stakeholders. Passionate about collaborating and sharing ideas with colleagues.

## WORK EXPERIENCE

### Senior Front-End Developer / Manager Northwestern University Libraries

March 2017 - current Chicago, USA

- Lead the front-end team in architecture and design of 8+ API-driven production-grade applications backed by Elasticsearch and GraphQL, enhancing discoverability and research for repository contents of digital collections.
- Prototype visualizations and chat-based user-interfaces to discover new relationships in vectorized collection material (Open AI, LangChain, Weaviate).
- Curate NPM React/JavaScript open-source component libraries for International Image Interoperability Framework (IIIF) spec development for cultural heritage community.
- Mentored/manage developers; served as agile scrum lead.
- Present at 10+ international Library tech conferences, sharing recent work, team strategy & processes, and learning opportunities.

### Senior UI Developer

#### Front Edge Digital Consulting

Nov. 2014 - March 2017 Chicago, USA / Remote

- Consulted & co-developed on-site with full-stack teams at Morningstar Investments, FPX and Hitachi Data Systems, converting legacy mono-repos to AngularJS/JavaScript front-ends.
- Re-designed and implemented Morningstar.com Dot Com team's investor sign-up portal, improving conversions > 17% in first 6-months. Built on Adobe Experience Manager, JSP, and JavaScript/Angular.
- Designed & built large-scale pricing model UIs for FPX's sales engineers, allowing dynamic pricing calculations in real time to drive sales conversions.
- Mobile dev: iOS prototype development for an in-house, inventory tracking application built with AngularJS / Swift.

### Lead Developer

#### Film Independent

Jan 2013 - Nov 2014 Los Angeles, CA USA

- Built PHP wrappers around Filemaker Pro database queries, optimizing and re-organizing an API structure by which clients can more efficiently access dynamic data records.
- Designed & developed custom WordPress PHP themes for filmindependent.org
- Collaborated with Marketing Director on strategy & execution in refactoring FI's sign-up and membership flows.
- Automated & implemented backup/recovery procedures for all WordPress systems.

## PRESENTATIONS

"Canopy IIIF: Remix Digital Assets From Cultural Heritage Repositories"  
Open Repositories 2024  
Gothenburg, Sweden

"IIIF Commons 2023 workshop"  
International Image Interoperability Framework 2023 Conference  
University of Naples Federico II - Naples, Italy

"Front End Theory"  
International Image Interoperability Framework 2022 Conference  
Harvard University / MIT - Cambridge, MA USA

## WRITING

I write Medium.com articles sharing Front End solutions to daily challenges. Here are a few sample titles. View all at: medium.com/@adamjarling

"Using React Hook Form in component tests"

"Mocking a React Router match object in your component tests"

"Create flexible functions using TypeScript generics"

"Catch TypeScript Errors in Next.js Before Building Your App"

"Build and Package an NPM Component with esbuild, React & TypeScript"

## CERTIFICATIONS

- AWS Certified Cloud Practitioner 2023
- Microsoft Career Essentials in Generative AI 2023
- Blockchain: Hyperledger essentials - IBM Developer certification

## REFERENCES

Available upon request

## PHP Developer

### RentReporters.com

Jan 2013 - Sept 2014 Los Angeles, CA USA

- Sync financial APIs for credit check and e-signature services for the primary user-registration pathway for over 4500 new users.
- Integrated APIs such as EVS, RightSignature, IDSafeLock & RendPaidOnline into a smooth UX flow.
- Re-factored prototype PHP modules into CodeIgnitor framework modules.
- Collaborated with marketing team to deliver wireframes, style guides, & responsive solutions to product owner/stakeholders.

## Front End Developer

### Manifest Digital

Jan 2011 - Jan 2013 Chicago, USA

- Developed Microsoft .NET & SharePoint sites for corporate clients: Mattel (Barbie), AON, Underwriters Laboratories, Zebra Printers, National Restaurant Assoc, American Dental Association & more.
- Collaborated with in-house designers, translating Adobe Photoshop/Illustrator comps to pixel-perfect HTML/CSS/JS apps.
- Pre-deployment QA Testing, performance troubleshooting, & accessibility testing.

## RECENT PROJECTS

### Digital Collections - Northwestern University Libraries

<https://dc.library.northwestern.edu/>

Co-Lead Developer 2022-current

Planned, built & launched primary discovery application for scholars & researchers exposing 204,000 Works across 193 Collections in Northwestern Libraries' digitized archives. NextJS, TypeScript, OpenSearch, Radix UI.

### Clover IIIF Component Library

<https://samvera-labs.github.io/clover-iiif/>

Co-Lead Developer 2022-current

Co-developed a popular component library & rich viewer featuring 15+ exports for International Image Interoperability Framework (IIIF) spec client implementations. Built with NextJS, Nextra, Vite/Rollup, TypeScript, Radix UI, .

### Zuma Live Livestream Event Platform

<https://www.zuma.live/>

Full Stack Developer 2021-2023

Architected full-stack, livestream platform ticketing service connecting independent music venues, artists & digital concert attendees for 100+ events using Stripe, Vimeo API, Supabase, ReCharts, NextJS & Sentry.

### Trade-r Cryptocurrency Price Forecasting Tool

<https://trade-r.com>

Full Stack Developer 2020-current

Built cryptocurrency trade tracking system, providing individual & dashboard alerts triggered on user-defined thresholds, built with Firebase, React & ReCharts JS. Supports 8 global currency pairs (ie. BTC/USD, BTC/GBP, etc) & provides real-time crypto pricing information for top 100 market cap coins (BTC, ETH, etc).

### Speculative Annotations - Library of Congress Labs

<https://labs.loc.gov/work/experiments/annotation/>

Lead Developer 2021-2022

As part of Library of Congress Labs program, worked with artist in residence to create an interactive annotation platform for high-school students. Users write, draw, stamp, highlight areas on historical, deep-zoom LOC Works curated by Library of Congress Librarians. Built with FabricJS, React, OpenSeadragon, ChakraUI, EmotionCSS, Jest & TestingLibrary.