

Nicholas Hoyt

Front-End Developer

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As front-end developer, my successes have resulted, in large part, from keeping up to date with front-end technologies, user interface design and web accessibility best practices, and maintaining a relentless focus on the user experience. My main strengths derive from the use of literate coding practices, a deep knowledge of JavaScript and the DOM event model, and iterative user testing of features as they are developed.

Experience

University of Illinois Urbana-Champaign

2005-09 – present

As interaction designer, user interface designer and front-end developer, the purpose of my work at UIUC is centered around producing open source software tools that foster awareness and better understanding of web accessibility.

Several of these tools have been adopted by the University of Illinois and other large university systems (e.g. Penn. State, Indiana University, Ohio State, University of Iowa) as their tools of choice for web accessibility evaluation.

- Designed and co-developed the 'Functional Accessibility Evaluator', a web application that spiders websites and produces evaluation results based on the entire range of WCAG 2.1 'A' and 'AA' Success Criteria.
- Designed and co-developed the 'AInspector for Firefox' browser extension, which performs the same type of accessibility evaluation as 'FAE' for a single web page, with additional features for dynamic content.
- Designed and developed the 'SkipTo Landmarks & Headings' browser extension for Chrome and Firefox, which enables users to easily navigate to ARIA landmark regions and HTML headings on a web page.
- Designed and developed the 'Page Structure' browser extension, which enables comprehensive manual checking of the headings and landmarks structure and labeling on a web page.
- Developed navigation menu prototypes and interaction models for the Web Implementation Guidelines Group that is tasked with creating a comprehensive set of web components for use by campus web developers.
- Designed and co-developed the 'A11yFirst plugins for CKEditor', which provide proactive guidance for accessible authoring, including proper heading structure and text alternatives for images.
- Designed and co-developed the 'Accessibility Bookmarklets', easily installable in any browser.

Independent Contractor – Boston, MA / Chicago, IL

1997-08 – 2005-08

As software engineer and web developer, provided user interface design and development services with a focus on front-end development for various clients, including ABN AMRO, Accenture, Allstate Insurance, Bank One, Fidelity Investments, HOLT Value Associates and the Illinois Institute of Technology.

- Designed and developed the 'Contribution Calculator' for Fidelity Investments, a Java-based financial planning tool that was featured on Fidelity's website for institutional investors for over 10 years.
- Authored an ebook on XML and XSLT development for internal use by Accenture developers
- Designed and taught the 'Java for Programmers' course, an 8-week certification preparatory course at the Illinois Institute of Technology.
- Designed and built a Java front-end prototype for an application used by financial portfolio managers at HOLT Value Associates.

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Skills

Front-End Development

- Modern JavaScript (ES6+), HTML, CSS
- DOM scripting and event handling
- Git, Node.js, npm, Babel, webpack, Rollup, Gulp
- Responsive design, Sass, Bootstrap
- Web components, Lit library, WebExtensions API

Web Accessibility

- WCAG 2.1 requirements
- WAI-ARIA Authoring Practices, ARIA in HTML
- Accessibility evaluation and auditing

User Interface Design

- Requirements gathering and analysis
- Experience with creating wireframes, interactive prototypes, user stories
- Usability testing and accessibility evaluation

Usability Testing

- Creation of interactive HTML/JavaScript prototypes
- Facilitation of remote and lab-based usability testing
- Quantitative and qualitative analysis of test results

Education

B.A. in Computer Science, University of Massachusetts Boston

Summa cum laude

Resources

Browser Extensions & Editor Plugins

- [Page Structure for Firefox](#)
- [SkipTo Landmarks & Headings for Chrome](#)
- [SkipTo Landmarks & Headings for Firefox](#)
- [Copy Page Link for Chrome](#)
- [Copy Page Link for Firefox](#)
- [A11yFirst plugins for CKEditor](#)
- [Accessibility Bookmarklets](#)
- [AInspector for Firefox](#)