Nicholas Hoyt

Front-End Developer

Phone: ⬜

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Portfolio: https://nicholashoyt.com/portfolio

Software development professional with over 20 years of experience specializing in user interface development for web applications and browser extensions. Experience with modern JavaScript, HTML, CSS, web accessibility, DOM events, WebExtensions API, web components and custom element authoring.

Experience

2005-09 – present   **Front-End Developer, Interaction Designer**

University of Illinois Urbana-Champaign

Designed and developed the Page Structure browser extension for Firefox, which displays the structural labels on a web page, including its page title, headings, and landmarks, for web accessibility evaluation. Released in April 2022 and available at the Firefox Addons website.

Designed and collaboratively developed the AInspector browser extension for Firefox, which performs detailed evaluations of web pages across twelve categories of WCAG and ARIA accessibility requirements. AInspector has been updated to version 2.0 with significant enhancements released in 2022. Available for installation at the Firefox Addons website.

Designed and developed the SkipTo Landmarks & Headings browser extension for Chrome and Firefox, released in June 2021. The extension enables keyboard-only users to efficiently navigate the important headings and landmarks on a web page. A complete description of the SkipTo extension with installation links is available at https://skipto.github.io.

Served as lead designer and developer for the A11yFirst Project in the creation of five accessibility-focused plugins for CKEditor. Released in 2019, the plugins proactively guide content authors as they edit, enabling them to create documents that meet WCAG accessibility requirements. More details are available on the CKEditor Addons website.

1999-08 – 2005-09   **Front-End Developer, Interaction Designer**

Web UI, Wheaton, IL

As owner and principal consultant of Web UI, Inc., provided software design and development services with an emphasis on interaction design and front-end development for various clients, including ABN AMRO, Accenture, Allstate Insurance, DeVry University, Fidelity Investments, HOLT Value Associates and the Illinois Institute of Technology.

1997-08 – 1999-08   **Front-End Developer, Interaction Designer**

Fidelity Investments, Marlborough, MA

Served as lead interaction designer in the redesign of NetBenefits, a web application providing retirement savings account access to over one million customers. Improved the user experience through contextual inquiry, task flow analysis and usability testing.

Designed and developed retirement investing tools for 401k.com, Fidelity's website for institutional investors. Tools included the Contribution Calculator, Withdrawal Calculator and Take Home Pay Calculator.

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Education

Introduction to Mathematical Thinking, Coursera, 2012
Taught by Keith Devlin, Ph.D. in Mathematics

Java for Programmers, University of Massachusetts Boston, 1996
Taught by Ethan Bolker, Chair of Mathematics and Computer Science Dept.

Graphical UI Development with X Window/Motif, Digital Equipment Corp., 1994
Taught at DEC headquarters in Maynard, MA

B.A. in Computer Science, University of Massachusetts Boston, 1991
Summa cum laude

Introduction to Programming in Pascal, Harvard Extension School, 1988
Grade: A

Jazz Composition & Arranging major, Berklee College of Music, Boston, MA
Seven full-time semesters, 1981–1984, GPA of 3.85/4.0

Skills

Front-End Development
- JavaScript (ES6 and later), HTML, CSS, DOM scripting and event handling
- Responsive design, web components, custom element authoring, Lit, React
- WebExtensions API

User Interface Design
- Experience with creating wireframes, interactive prototypes, user stories
- Usability testing and accessibility evaluation

Web Accessibility
- WCAG requirements
- ARIA Authoring Practices, ARIA in HTML

Web Development
- Git, Node.js, npm, Babel, webpack, Rollup, Gulp, Sass
- Python, Django, XML/XSLT

Resources

Browser Extensions & Plugins
- Page Structure for Firefox
- SkipTo Landmarks & Headings for Chrome
- SkipTo Landmarks & Headings for Firefox
- A11yFirst plugins for CKEditor
- AInspector for Firefox
- Accessibility Bookmarklets

Code Repositories
- Page Structure extension
- SkipTo Landmarks & Headings extension
- Copy Page Link extension
- AInspector for Firefox extension