Codecraft Works Empowers Student Learners through Accessible Online Platform



About Codecraft Works: Codecraft Works is an educational technology company, learning service provider, and workforce development partner. Codecraft Works partners with the best people and organizations in the world to research, design, develop, and deliver skills-based training programs with a focus on diversity and inclusion. Together, they are creating technical problem solvers ready to help companies bridge the digital skills gap by expanding access to high-quality learning experiences and mentoring services for primary students, secondary students and adults across the nation.

Industry: Ed-Tech

Tools/Services Utilized: Web Accessibility Audit, VPAT, axe Auditor, axe DevTools Browser Extension

Story Snapshot:

- Codecraft Works delivers fun and engaging learning experiences to students online in the subjects of computer science, engineering, cloud computing and cybersecurity.
- To ensure their educational tools are accessible to all learners, Codecraft Works initiated a Web Accessibility Audit and Voluntary Product Accessibility Template (VPAT) with Deque.
- The web accessibility audit revealed areas of improvement on their learning platform and provided actionable solutions to make it accessible to people with disabilities.
- Through the web audit and remediation effort, the developers at Codecraft Works now develop with accessibility in mind and are working towards including accessibility in their automated testing processes.
- The accessibility project led to improved relationships with business partners as well as a boost in web analytics for Codecraft Works' website.
- Creating accessible learning experiences furthers Codecraft Works' mission and enables them to better serve their customers, partners and business initiatives.



Empowering the next generation of technologists through fun, skill-building coursework

Video games are a passion for many school-aged children and adults alike, yet very few have access to the resources needed to learn skills around the subject matter such as computer science, engineering and cybersecurity, until much later in life, if at all. Codecraft Works is an education technology company that seeks to address this digital divide by teaching valuable technology skills to students online. Through its curricula, Codecraft Works helps shape the future generation of technologists by equipping them with the skills to understand, design and develop the tools that we all rely on today.

Codecraft Works' coursework can help turn a passion into a lucrative career. "Our mission is simply to spark joy, encourage creativity, and inspire futures," says Shannon Landin, Founder & CEO of Codecraft Works. Inherent in Codecraft Works' mission statement is that all its educational opportunities must be available to all learners. "To me, it's critical that those opportunities be available to all people," says Landin. "I don't think we can build sustainable technical solutions for everyone without including everyone. We need to make education, the tools that we use, all inclusive so that enough people can participate in shaping what these tools look like."

Building the foundation of an accessible learning platform

The Codecraft Works platform provides opportunities to build skills in computer science, engineering, cloud automation, software development and even cybersecurity. On the Codecraft Works online platform, anyone can create a free account where you can then view tutorials, create projects and portfolios, attend live lessons, and view and share projects with a community of other learners. Additionally, users can sign up, enroll in courses, and pay for their courses entirely online.



A decision to invest in the accessibility of Codecraft Works' platform aligned with both their mission as well as their business goals. Initially, various partnerships and business relationships led to exposure to people with disabilities using Codecraft Works' tools. It was important to leadership that they were not excluding anyone who may want to engage with their platform and purchase their tools and courses through an inaccessible web experience. With this priority in place, Codecraft Works sought the help of an accessibility vendor to perform an audit on their application in order to determine their current state of accessibility and where they could make improvements.

Although originally geared only towards younger learners, Codecraft Works' curriculum is now retooled and consumed by older teens and adults of working age, creating a large network of learners with varying backgrounds and abilities. Addressing accessibility to such a broad audience of learners is both functional and market-responsive. "Through research, we learned that not only are there tons of people out there who would benefit from our tools being accessible, but that we would benefit on so many levels," explains Landin.

Performing an Audit with Deque Prioritizes Accessibility in the Long-term

Codecraft Works partnered with Deque to perform a comprehensive Web Accessibility Audit and Voluntary Product Accessibility Template (VPAT) on their online training portal. The audit was performed against WCAG 2.0 A and AA guidelines and produced a detailed report that identified areas where accessibility could be improved on the Codecraft Works application. Codecraft Works' team was able to work off this report along with the guidance of Deque's accessibility Subject Matter Experts (SMEs) to make the necessary changes to their application's code.

Using axe Auditor and the axe DevTools Browser

Extension, Landin and her team worked through
the audit report to make improvements to their web
application. "The tools that Deque provided really
enabled us to do the work ourselves," she says.
"I was surprised to see how useful the audit report was
and how easy it was to use. The audit report was fairly
interactive and we were able to tie every one of the
issues back to our own JIRA tickets."

The accessibility audit process had a notable impact on how Codecraft Works approaches development work. Today, the development team does not intentionally introduce accessibility issues into their platform's code. Rather, they pay close attention to developing with accessibility in mind. "We don't put out components that aren't accessible. We're much more mindful of accessibility when we're creating and testing new UI components," notes Landin. In the near future, Codecraft Works is working towards an automated accessibility testing solution in order to avoid regression and reintroduction of issues, as well as to assure that accessibility will remain a part of the development process over time.

"The process that we went through with Deque was very well understood and clearly laid out," Landin says, reflecting on the audit project. "From the very first person I talked to, all the way through the delivery of the remediation report, as well as the tools that we were able to use to get the job done—it was all there."

"Finding Deque and the resources that you offer made the difference for us."

- Shannon Landin

Accessibility yields benefits to business and relationships

Codecraft Works partners with nonprofits, workforce development groups, educational institutions and government organizations to spread their technology coursework and serve other groups in need of their educational tools. As a result of the accessibility audit project with Deque and the improvements made to the Codecraft Works platform, those relationships have grown. "Practicing accessibility has strengthened the relationships with our partners," Landin says. "Showing commitment to accessibility has enabled us to grow our contracts, grow some of our work relationships and earn new business."



Additionally, accessibility has helped improve Codecraft Works' web analytics, specifically search engine ranking and Search Engine Optimization (SEO). Through better search engine rankings and improved website visibility, more people can discover Codecraft Works and, as a result, buy courses and learn valuable technology skills. "Turns out that having your heart in the right place and wanting to include people isn't just the right thing to do, it's also good business," Landin reflects.

"If you're thinking about accessibility, do it before it's required of you. Do it because it's a benefit to your organization and your customers, and because it will likely help you increase business and gain customers."

- Shannon Landin

Accessibility in the spirit of innovation and continued progress

In order to make technology a force for good in the world, it's important to Shannon Landin and the team at Codecraft Works that everyone is included in that vision for the future. "I'm really passionate about connecting people to things that inspire them," says Landin. "But also connecting what inspires them to the important work we have to do, to make sure that technology is a positive force in our world." As Codecraft Works harness the passions of a younger generation into exciting and potentially lifelong work, it's important that no one is left out of the change to shape the future of technology.

Embodied in the accessibility project is Codecraft Works' spirit of innovation and progress, and to empower others to solve problems that may not have been initially considered. "It's thrilling to think we can work on accessibility, which in turn drives our ability to innovate," says Landin.

Looking towards the future of their accessibility work, the team at Codecraft Works is excited to not only keep their application accessible, but to also expand accessibility coursework to their students. "We're really excited about opportunities to include accessibility in the development environment for students," says Landin. The accessibility project with Deque propels Shannon Landin and her team to continue looking for opportunities to innovate and make learning fun, different, and inclusive to all people. "This work has definitely inspired that and it is something that we were all excited to dig into in the coming years," she says.

