Derek S. Riemer

303-906-2194
derek@derekriemer.com
https://derekriemer.com

About Me

I am a founder and problem-solving computer scientist, skilled in developing accessible, secure, and performant user interfaces. Led projects at Google Drive, scaling to a billion users. Seeking to apply expertise to meaningful projects.

Proficient:

Python, HTML/JavaScript/TypeScript/web frameworks, accessibility best practices, Screen reader development and design, Non-visual desktop access (NVDA), Jaws For Windows, Chromevox, Talkback, release management, i18n and l10n, web performance, analytics, project leadership

Familiar:

C++, Java, c#, bash, nginx and ubuntu server stacks, npm and pnpm package management, Linux system admin, Voiceover, WCAG2, CSS, Encryption concepts, password security concepts, IT Security best practices

Work History

Google Drive Web software engineer (SWE), July 2018 – March 2025

- Road mapped and Maintained internationalization tooling and processes on a 1 billion user product (Google Drive).
    - Tooling ensures translations are appropriately translated, alerting when fallback messages are not properly integrated. This stopped users in over 40 languages from experiencing regressions if strings unexpectedly changed.
    - Tooling allowed release managers to track necessary variables for gaining insight into which messages blocked the next release, which was a complex task when coordinated with team members across a 45+ member team.
        - Designed and implemented key accessibility support for a common components library.
    - Designed a library for expressing keyboard interactions for specific elements, based on page data rather than hardcoded rules per component.
    - Implemented a tree view, tree grid, and grid keyboard interaction pattern to the library, for use with any grid or tree component.
    - Migrated several common component's scaffolding from Google material 2 to Google material 3, helping to unlock dark mode support for the app.

- Improved Google Drive menu rendering performance by 50% at the 50th percentile, 30% at the 95th percentile.
- Implemented a surveying system for understanding pain points with critical user interactions in Drive web.
- Designed and implemented quantitative user interaction timing systems in Drive Web.
- Consulted with engineers on hundreds of accessibility bugs in Google products.
- Designed and implemented data sonification for key performance data in Drive Web.
- Drive Server side Rendering: Contributed the file size column's data rendering strategy, the overall project caused a 50% improvement to page load time.

Software Engineer, DictationBridge project, fall 2016 – spring 2018.

- Designed and implemented a python based system for configuring custom speech recognizer commands so that blind users with no arms could browse the web and their computers with speech.

Benetech Intern: Summer 2016 and Summer 2017

- Rapidly prototyped ebook concepts to aid in producing publishing guidelines for more accessible digital graphics and accessible math. Also, added Open Dislexic font support to a major ebook reader.
- contributed assistive technology testing support data for math accessibility. Additionally, provided consulting services for the beginning stages of an open source math editor concept.

President and cofounder, Braille it 4U, LLC, Arvada, CO. November 2011 to Fall 2014

- Provided local businesses and restaurants with easy to use braille and large print services so blind people would have access to braille menus, obituary flyers, and any other document a business wanted printed for a blind customer.
- Also offered a digital menu, and a website where local blind people could find restaurants with accessible menus.

Education:

University of Colorado Boulder, BS Computer Science 2018, 3.5 GPA

Community Activities

- Ski for Light Colorado board member, Spring 2024 – Present.
- NVDA Add-on code reviewer and site maintainer, Spring 2016 – spring 2018.
- Author of 9 NVDA Addons, developed by regularly consulting with screen reader internals written in Python and in-process-injected C++
- NVDACon Chair and planning committee , Spring 2016 – spring 2019, Fall 2021 – 2022.