# Derek S. Riemer

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## 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.