# **Drew King**

Seattle, WA 

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#### **SUMMARY**

Data analyst and UX-focused engineer with experience in accessible web development, interactive data visualizations, and stakeholder-driven design. Published researcher and mentor skilled in R, Python, and JavaScript, with strengths in communication, analysis, and tech-driven problem solving.

#### **SKILLS**

Concepts: Communication, Mentorship, Data Modeling, Computational Analysis, Responsive Web Design

**Experienced**: Figma, Git, R, tidyr, dplyr, ggplot2, R-Shiny, HTML, CSS **Proficient**: JavaScript, React, Next.js, WordPress, Python, Pandas

Familiar: Canva, Plotly, d3.js, PHP, ARIA

# **EDUCATION**

# University of Washington

Seattle, WA

Bachelor of Science in Computer Science

December 2024

- 3.5 Grade Point Average
- Dean's list: Summer and Autumn 2023, Autumn 2024
- Mathematics for Computation Workshop, Teaching Assistant, Autumn 2022
- Ability Student Organization, Co-Chair, 2024

#### **EXPERIENCE**

#### **KBCS - Radio Station**

Bellevue, WA

Operations Support Specialist

September 2024 - Present

#### kbcs.fm

- Collaborating with staff to identify usability issues with website and survey data through stakeholder interviews.
- Mentoring data analytics intern by teaching fundamentals in R and Python (Pandas) to support the successful development of a dashboard in the R-Shiny publishing framework with Plotly in 6 months.
- Communicating with intern to identify dashboard development techniques that use tidy data, ensure privacy for survey respondents, are statistically accurate, and meet security requirements of Bellevue College IT.
- Identifying usability problems with the production website using manual and automated accessibility testing to check compatibility with assistive technology such as screen readers and screen magnifiers.
- Refactoring the KBCS WordPress theme to comply with Web Content Accessibility Guidelines (WCAG) by using semantic HTML and ARIA, with code review on GitHub by IT Services on GitHub.
- Testing the updated WordPress theme for compatibility with assistive technology, visual bugs and non-visual bugs and ensuring that theme is built for Search Engine Optimization (SEO).
- Resulting site has fewer WCAG violations, better responsive web design (RWD), and improved SEO, increasing the organic referrals from Google by two times in less than three months.

#### High Speed Rail - Project

University of Washington October 2024 – December 2024

Data Analyst and Frontend Engineer

kingdrewsea.vercel.app/high-speed-rail/

- Designed an interactive visualization using the d3.js library that illustrates the potential for high-speed rail in the United States by allowing people to create their own theoretical high speed rail network.
- Aggregated geospatial and census data in R by using statistical methods to calculate the estimated ridership for a potential high speed rail line between each major population hub, improving visualization render time by tenfold.
- Engineered web-based visualization of this data using state management techniques in React for partial rerendering of the chart, this reduced visual artifacts during interaction and improved responsiveness.
- Built CI/CD deployment pipelines to publish changes on GitLab to the web, enabling better collaboration.
- Communicated regularly with a team of software engineers to meet deadlines, incorporate peer feedback, and earn a perfect score on the project in five weeks.

## MindMii - Project

UX Designer

Seattle, WA March 2023 - June 2023

# kingdrewsea.vercel.app/mindmii

- Designed and executed a diary study on texting behaviors with the Huskies for Neurodiversity community.
- Collected and summarized analyses from journal entries, focusing on communication needs of study participants.
- Analyzed diary study findings to pinpoint sources of communication barriers and create user persona's.
- Created iterative Figma design mockups for the MindMii app, incorporating feedback to improve design quality.
- Resulted in a perfect score on the project and an award from the course staff for best project.

# University of Washington

Seattle, WA

Teaching Assistant – Mathematics in Computation Workshop

September 2022 - December 2022

- Mentored students in a math seminar at The Allen School on problem solving and proof writing techniques.
- Listened to feedback from students and tailored communication to meet the needs of each student.
- Enabled students to succeed by providing them with assignment feedback that was direct and constructive.

#### RESEARCH

# CREATE Lab, University of Washington

Seattle, WA

Research Intern

January 2024 - July 2024

- Investigated heuristics for creating an authoring tool for researchers that publishes data visualizations that are accessible and interpretable to blind/low-vision screen reader users (SRUs).
- Retrieved, read, and summarized existing research on accessible data visualization for SRUs.
- Created a taxonomy of different data visualizations from research to represent them in a non-visual format.
- Designed lo-fidelity paper prototypes of authoring tool and high-fidelity prototypes in Figma.
- Communicated findings and designs with lead full-stack software engineer and principal investigator weekly.

#### Infectious Disease Lab, Fred Hutch

Seattle, WA

Research Intern

March 2021 - August 2021

#### doi.org/10.51387/25-NEJSDS82

- Analyzed synthetic experiment data to establish guidelines on variable selection in data modeling algorithms with small datasets and many dimensions to assist bioinformaticians modeling data from people with rare diseases.
- Learned R tools including tidyr for data cleaning, dplyr for aggregating, and ggplot2 for visualizing by taking a dry lab seminar offered to Fred Hutch employees taught in R.
- Applied computational analysis and data modeling techniques, taught by the Principal Investigator, to develop visualizations of preliminary experimental results within 6 months and support early-stage data interpretation.
- Co-authored research paper published in The New England Journal of Statistics in Data Science.

# **VOLUNTEERING**

# Ability – Student Organization, University of Washington Co-Chair

Seattle, WA

January 2024 - December 2024

- Collaborated with a team of five students to create impactful events centered around technology and accessibility.
- Onboarded officers for Student Relations and External Relations, teaching org structure and job-specific tasks.
- Edited student created slideshows and documents in G-Suite, checking for accessibility and design fidelity.
- Trained Student Relations Officer on visual design techniques for designing marketing materials in Canva.
- Mentored successor for Co-Chair role by communicating functions and providing opportunities to lead meetings.
- Facilitated an environment of open communication which led to five successful student run events.

# Ability - Student Organization, University of Washington

Seattle, WA

Student Relations Officer

June 2023 - December 2023

- Recruited students for events and leadership roles at a small student organization by communicating with peers.
- Designed marketing materials in Canva using techniques learned from a visual design course at UW.
- Maintained a mailing list of all active and prospective members and created engaging emails for recruitment.
- Marketed events by posting advertisements on social media, on campus with flyers, and through word of mouth.
- Resulted in seven well attended events and promotion to Co-Chair.