# **BRIAN J. CRAGUN**

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## **SUMMARY**

A highly knowledgeable and accomplished full stack web developer with extensive experience in user interface (UI) and accessibility, front-end and backend web development, accessibility standards and testing, code development, Agile methodologies, data processing, data conversions, and automated testing. Demonstrates extensive expertise in leading teams and partnering with levels throughout an organization to guide the delivery of technology and business solutions to drive continued growth. Utilizes strong technical knowledge and analysis skills to make sound decisions, solve challenges, and deliver results.

## **TECHNICAL SKILLS**

Web: JavaScript, React.js, AngularJS, jQuery, HTML5, CSS3, Vue.js, Node.js, RESTful APIs, Bootstrap, Carbon Design System, Sass, Styled Components, ISON

Backend: Python, Java, GraphOL

Automated Test: Cypress, Selenium, pytest, JUnit, Jasmine, Karma, Jira Environment / Process: Agile, SDLC, Git, VS Code, Eclipse, NiFi, internationalization

Analysis: NumPy, Pandas, DeepDiff

Accessibility Standards and Compliance: WCAG 2.0, WAI-ARIA, Section 508 Tools: Mac OSX, Windows, Photoshop, Sketch, Camtasia, WordPress

## **EXPERIENCE**

## MERATIVE F.K.A. IBM WATSON HEALTH

Remote

Senior Software Engineer.....

2022-2023

Skills: jQuery, React.js, HTML5, CSS3, Cypress

- Oversaw user interface development for Annotator for Clinical Data Configuration Editor, which configures natural language processing for medical records.
- Collaborated on a cross-functional team with legal and marketing to execute against product road map of rebranding user interfaces.
- Learned and maintained 120,000-line application program written in jQuery and React.js.
- Learned Cypress and brought system to 95% testing coverage.
- Built New Relic synthetic monitors. Created Azure health notifications.

**IBM** 

Remote

Skills: Java, Python, NiFi, React.js, HTML5, CSS3, Sass, JUnit, pytest, Git, PDFBox, NumPy, pandas, DeepDiff

- Implemented medical record processing for health data pipeline, including data processing, grooming, preparation, and handling via NiFi and Python.
- Expanded and built backend processing and conversion of HL7 v2.6 to FHIR 4 patient records. Made significant contributions to github.com/LinuxForHealth/hl7v2-fhir-converter. Researched valid data conversions.
- Envisioned and created comparison tool for complex FHIR JSON with features for sorting, filtering, and masking.
- Automated analysis graphics reporting processing with NumPy and Pandas.
- Led and created custom AI Chatbot user interface for Intelligent Health Engagement.
- Used Agile processes and methodology.

Skills: React.js, GraphQL, AngularJS, Jasmine, Karma, JavaScript, HTML5, CSS3, Sass, Selenium, Vue.js, Carbon Design System

- Served as team leader of six developers of web UI for IBM Watson for clinical trial matching. Built physician and administration UI interfaces allowing analysis of patient data, trial matching, and trial criteria management.
- Managed designs, reviews, team commitments, and communicating progress. Collaborated across teams.
- Oversaw accessibility certifications, techniques, and testing requirements.
- Used Agile processes and methodology.
- Led UI Guild of user interfaces developers across projects.

Skills: IAccessible2, Objective-C (iOS development), WAI-ARIA

- Provided accessibility guidance, evaluation, technical support, and training across IBM, with specific responsibility for three divisions and 200 products as part of corporate-wide accessibility mission for all brands and software.
- Presented strategies and business justification to executives.
- Developed corporate-wide strategy for mobile accessibility.
- Guided, trained, and served as liaison for area representatives who worked directly with developers.
- Handled customer-critical situations regarding accessibility.
- Chaired best practices committees, solving accessibility problems in mobile devices and graphics visualization.
- Participated in international standards development. Co-authored 13066-3 IAccessible2, now an international standard.
- Learned, detailed, and trained in various industry best practices for accessibility and associated government rules for minimal implantation of rules.
- Developed techniques and trained others to make software accessible for disabled.
- Contributed to canon of best practices in industry accessibility standards and implementation.

## ADDITIONAL EXPERIENCE

IBM, Rochester, Minnesota, **Senior Software Engineer, GUI Development,** 2004-2008. Led team developing web-based graphical user interface for controlled document management system. Achieved fully compliant accessibility and internationalization. Co-developed prototype for desktop advanced medical imaging workstation, a joint research venture between IBM Healthcare Life Sciences and Mayo Clinic.

IBM, Rochester, Minnesota, **Senior Software Engineer, Product Lead,** 2002-2004. Directed product team of ten developing document annotation system.

IBM, Rochester, Minnesota, Advisory Programmer, UI Application Development, 1995-2002

IBM, Rochester, Minnesota, Advisory Programmer, Advanced Technology Products, 1991-1995

IBM, Rochester, Minnesota, Manager, Manufacturing Process Engineering, 1989-1991

IBM, Rochester, Minnesota, Staff Programmer, CAD / CAM Systems, 1982-1989

## **LEADERSHIP AND BUSINESS INITIATIVES**

**IBM Master Inventor, Invention Review Board Chair,** 2001-2021. Contributed to corporate-level invention review and development. Mentored 80 inventors in patent process and evaluating patents.

**Southeast Minnesota Visual Artists (SEMVA) Art Gallery, Chief Information Officer and Board Secretary,** 2015-2019. Oversaw all computer systems, including computers, point of sale system (ShopKeep), website, security cameras, and procedures. Developed new customized WordPress website. Developed custom software for artist notification and label barcode printing. Recommended and authorized purchases.

Southeast Minnesota Visual Artists (SEMVA) Art Gallery, Webmaster, 2009-2015. Managed gallery website and social media.

## **EDUCATION**

UNIVERSITY OF WISCONSIN, Madison, Wisconsin M.S., Manufacturing Systems Engineering

UTAH STATE UNIVERSITY, Logan, Utah **B.S., Computer Science** 

## PROFESSIONAL DEVELOPMENT

Training and Coursework: IBM Design Thinking, Containers & Kubernetes Essentials, Docker Essentials, IBM Cloud Core, Introduction to Golang, HIPAA, HL7, FHIR, SQL databases

## **PATENTS**

Prolific and recognized inventor with 144 issued U.S. patents, including: User Interfaces, Browsers, Accessibility, Consumer Products, and Document Annotations