

Dr. Shaun Wallace

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Academic Positions

Assistant Professor

Kingston, RI

UNIVERSITY OF RHODE ISLAND, DEPT. OF COMPUTER SCIENCE AND STATISTICS

Aug 2023 - Current

- Director: Human-Centered Experiential Technologies (HAX) Lab
- Co-Director: Virtual Readability Lab
- Faculty Senator (starting 2024)

Education

Brown University, Dept. of Computer Science

Providence, RI

PHD COMPUTER SCIENCE

2023

- Advisor: Jeff Huang
- Thesis: Public Data Systems for Evolving Information

Brown University, Dept. of Computer Science

Providence, RI

MSc COMPUTER SCIENCE

2017

University of Limerick, Dept. of Computer Science and Information Systems

Limerick, IE

MSc MUSIC TECHNOLOGY, 1ST CLASS HONOURS

2009

- Advisor: Kerry Hagan
- Thesis: Real-time Audio Spectra Manipulation with Adaptive FM Synthesis

University of Rhode Island, College of Business

Kingston, RI

BSc MANAGEMENT SCIENCE & INFORMATION SYSTEMS, SUMMA CUM LAUDE

2008

Previous Industry Experience

Lead Systems Programmer

Providence, RI

BROWN UNIVERSITY, DEPT. OF COMPUTER SCIENCE

Jan 2018 - Jul 2023

Research Intern

Cambridge, MA

ADOBE, CREATIVE INTELLIGENCE LAB

Jul 2019 - May 2022

Senior Application Developer

Providence, RI

BROWN UNIVERSITY, ICERM

Mar 2011 - Aug 2017

RPS Group

South Kingstown, RI

SOFTWARE DEVELOPER

Jul 2010 - Nov 2010

University of Rhode Island, Division of Student Affairs

Kingston, RI

WEB DEVELOPER

Jan 2010 - Jun 2010

University of Rhode Island, Conference Services & Special Program Development

Kingston, RI

WEB DEVELOPER

May 2005 - Dec 2009

Publications

Chirp: The Impact of Private Online Self-Disclosure on Perceived Social Support

[CSCW 24](#) [to appear]

MASSACHI T., ROY J., CHOI L., HOEFER G., WALLACE S., HUANG J.

Digital Reading Rulers: Evaluating Inclusively Designed Rulers for Readers With and Without Dyslexia

[CHI 23](#)

NICKLAUS A., CAI T., BYLINSKI Z., WALLACE S.* (*SENIOR ADVISING AUTHOR)

Web Table Formatting Affects Reading Speed on Mobile Devices

[WWW 23](#)

TENSMEYER C., BYLINSKI Z., CAI T., MILLER D., NENKOVA A., NIKLAUS A., WALLACE S.

Towards Individuated Reading Experiences: Different Fonts Increase Reading Speed for Different Individuals

[TOCHI 22](#) [Journal]

WALLACE S., BYLINSKII Z., DOBRES J., KERR B., BERLOW S., TREITMAN R., KUMAWAT N., ARPIN K., MILLER D., HUANG J., SAWYER B.

Readability Research: An Interdisciplinary Approach

[FnT HCI](#) [Journal]

27* CO-AUTHORS CONTRIBUTED EQUALLY

Personalized Font Recommendations: Combining ML and Typographic Guidelines to Optimize Readability

[DIS 22](#)

CAI T., WALLACE S., REZVANIAN T., DOBRES J., KERR B., BERLOW S., HUANG J., SAWYER B., BYLINSKII Z.

The TESS Triple-9 Catalog: 999 Uniformly Vetted Exoplanet Candidates

[MNRAS 22](#)

CACCIAPUOTI L., KOSTOV V., KUCHNER M., QUINTANA E., COLÓN K., BRANDE J., MULLALLY S., CHANCE Q., CHRISTIANSEN J., AHLERS J., DI FRAIA M., DURANTINI LUCA H., IENCO R., GALLO F., DE LIMA L., HYOGO M., ANDRÉS-CARCASONA M., FORNEAR A., DE LAMBILLY J., SALIK R., YABLONSKY J., WALLACE S., ACHARYA S.

Case Studies on the Motivation and Performance of Contributors Who Verify and Maintain In-Flux Tabular Datasets

[CSCW 2021](#) [Journal]

WALLACE S., PAPOUTSAKI A., TAN N. H., GUO H., HUANG J.

Optimizing Electronic Health Records Through Readability

[HFES 21](#)

BALL R.V., MILLER DB, WALLACE S., MACIAS K.C., IBRAHIM M., GONZAGA ER., KARASIK O., ROHLSSEN-NEAL D.R., BARRIENTOS S., ROSS E.A, ASMAR A., HUGHES A.M., HANCOCK P.A, SAWYER B.

Sketchy: Drawing Inspiration from the Crowd

[CSCW 20](#) [Journal]

WALLACE S., LE B., LEIVA L., HAQ A., KINTISCH A., BUFREM G., CHANG L., HUANG J.

Drafty: Enlisting Users to be Editors who Maintain Structured Data

[HCOMP 17](#)

WALLACE S., VAN KLEUNEN L., AUBIN-LE QUERE M., PETERKIN A., HUANG Y., HUANG J.

Publications Short Papers

MuM'23 Workshop on Interruptions and Attention Management: Exploring the Potential of Generative AI

[AMSW23](#)

DINGLER T., SRIVASTAVA N., WALLACE S.

Asynchronous Collaboration Systems for Evolving Information

[CHI DC 22](#)

WALLACE S.

Debiased Label Aggregation for Subjective Crowdsourcing Tasks

[CHI LBW 22](#)

WALLACE S.*, CAI T.*, LE B., LEIVA L.* (*EQUAL CONTRIBUTIONS)

Accelerating Adult Readers with Typeface: A Study of Individual Preferences and Effectiveness

CHI LBW 20

WALLACE S., TREITMAN R., HUANG J., SAWYER B., BYLINSKII Z.

Visualizing Self-Track Mobile Sensor and Self-Reflection Data to Help Sleep Clinicians Infer Patterns

CHI LBW 17

WALLACE S., SASSON D., GUO H.

Small Abstracts and Invited Talks

POSTER ABSTRACTS

A Psychophysical Approach for Investigating Format Readability Online

VSS 24

KÜÇÜK KM., RASHID MD M., PENKOVA V., GIROUX A., ATILGAN N., WALLACE S., BERLOW S., KOSOVICHEVA A., DAY S., SAWYER B.

Space for Readability: Effects on Reading Speed from Individuated Character and Word Spacing

VSS 22

WALLACE S., DOBRES J., SAWYER B., BYLINSKII Z.

Readability for All: The Effect of Individualized Font Formats on Reading Speed and Comprehension for Students in Grades 3-8

SSSR 22

DAY S., SAWYER B., WALLACE S., TREITMAN R., CROWLEY K., JORDAN M.

Considering the Speed and Comprehension Trade-Off in Reading Mediated by Typography

VSS 21

WALLACE S., DOBRES J., SAWYER B.

Improving Reading Outcomes Using Digital Reading Rulers for Readers With & Without Dyslexia

VSS 21

WATSON A., WALLACE S.

Individual Differences in Font Preference & Effectiveness as Applied to Interlude Reading in the Digital Age

VSS 20

WALLACE S., TREITMAN R., HUANG J., SAWYER B., BYLINSKII Z.

Presented as a Talk

INVITED TALKS

- 2024 **The Vision Science of Digital Readability: Community-Building Workshop**, Towards Controlling the Physical Size of Text on Different Screens
- 2024 **NASA Cit Sci Leader Series**, Why do they do it? Motivations of paid and unpaid participants
- 2024 **AI Summit at the University of Rhode Island**, Nurturing Critical Thinking in the Age of Generative AI: a dialog on educational strategies
- 2022 **Skoll World Forum**, Building Better Reading Through Personalized Digital Text
- 2022 **Skoll World Forum**, Building Better Reading Through Personalized Digital Text
- 2022 **Adobe for Education Summit**, Readability Session
- 2021/22 **Adobe Tech Summit**, Inventing Beyond Barriers: Readability Research & Impact
- 2021 **Adobe Readability Research Symposium**, Personalizing Fonts to Increase Reading Speed
- 2021 **Adobe Education Leadership Summit**, Personalized Formatting for Better Readability
- 2019 **University Central Florida: HCI Course**, Building Collaborative Research Systems
- 2015 **Microsoft NERD: Quantified Self on Personal Informatics**, N=1: Food and Drink Affects on Weight

GRANTS FUNDED

2023-2024 **Low-Code Center of Excellence Platform: Phase 1**, United States Air Force, STTR

\$100,000

Teaching, Mentorship, Service, Awards, & Press

TEACHING

2024	Instructor , Designing Interactive Systems, University of Rhode Island	CSC 592-DIS
2024	Instructor , HCI Research Seminar, University of Rhode Island	CSC 592-HCI
2023,24	Instructor , Operating Systems & Networks, University of Rhode Island	CSC 412
2023	Guest Lecture and Syllabus Design , User Interfaces & User Experience, Brown University	CSCI 0130
2022	Guest Lecture , Computer Interface Design, Tufts University	
2022	CHI Course , Research Methods for People in a Hurry: An introduction to research methods in computer-human interaction, psychology, and human factors	
2022	Guest Lecture , A/B Testing, Brown University Medical School	
2021	Guest Lecture , Web Development 2 – Back-End Engineering, University of Luxembourg	
2021	Guest Lecture , User Interfaces & User Experience, Pomona College	
2020	Run Crowdsourcing Assignment , Human-Computer Interaction Seminar, Brown University	CSCI 2300
2018	Guest Lecture , User Interfaces & User Experience, Brown University	CSCI 130/1300
2018	Guest Lecture , Human-Computer Interaction Seminar, Brown University	CSCI 2300
2018	Run Crowdsourcing Assignment , Human-Computer Interaction Seminar, Brown University	CSCI 2300
2017	Graduate Teaching Assistant , User Interfaces & User Experience, Brown University	CSCI 130/1300
2016	Teaching Assistant , User Interfaces & User Experience, Brown University	CSCI 1300

MENTORSHIP

(1 Co-Authored Published Paper) (2 Developed Open-Source Software) (3 Won Research Award)

2024	Marcin Pawlukiewicz² , University of Rhode Island
2024	Max Mercurio² , University of Rhode Island
2024	Reid Morin² , University of Rhode Island
2024	Borano Llana² , University of Rhode Island
2024	Michael Sayers² , University of Rhode Island
2023-24	Kushas Khadka² , University of Rhode Island
2023-24	Yusra Suhail² , University of Rhode Island
2022	Jiaqi Su² , Brown University
2020-21	Long Do² , Brown University <i>now at Meta</i>
2019-21	Diana Lee² , Brown University <i>now at Meta</i>
2020	Alice Marbach² , Brown University <i>now at Audible</i>
2019-20	Matthew Bejtlich , Rhode Island School of Design
2019-20	Zhengyi Peng² , Brown University, <i>now at Microsoft</i>
2018-19	Brendan Le^{1,2} , Brown University, <i>now at Uncountable</i>
2019	Michael Bardakji , Brown University, <i>now at Vetcove</i>
2018-19	Neilly Tan^{1,2} , Brown University, now a PhD at Univ. of Washington
2018	Ari Kintisch^{1,2} , Brown University, <i>now at Squarespace</i>
2018	Andrew Park , Brown University, <i>now a PhD Student at CMU</i>
2017-18	Gabrielle Bufrem¹ , Brown University, <i>now at Pivotal Labs</i>
2017-18	Aman Haq^{1,2} , Brown University, <i>now at Microsoft</i>
2017	Linda Chang^{1,2} , Brown University, <i>now at Nasdaq</i>
2017	Aarthi Anbalagan² , Brown University, <i>now at Microsoft</i>
2017	Abraham Peterkin¹ , Brown University, <i>now at Nickelodeon</i>
2017	Yirui Huang^{*1} , Brown University & Univ. of Toronto, <i>now at Univ. of Edinburgh</i>
2016	Marianne Aubin-Le Quere^{1,2,3} , Brown University, now a PhD at Cornell
2016	Lucy Van Kleunen^{1,2,3} , Brown University, now a PhD at Univ. Colorado

TRAINING

2022	Certificate II: Sheridan Teaching Seminar - Course Design , Brown University
2021	Certificate I: Sheridan Teaching Seminar - Reflective Teaching , Brown University
2016	Teaching Assistant Diversity Sensitivity , Brown University
2016	Leadership Certification Program , Brown University

VOLUNTEER

2024	Workshop: Pathways to Success in Computer Science , University of Rhode Island
2024	Guest Reader about STEM and AI , East Greenwich Rhode Island School District
2021-22	PhD Office Hours , Brown University, <i>*Co-Created</i>
2017-18	First Year PhD Mentorship Program , Brown University
2017	Student Volunteer , HCOMP
2008-09	After Hours Coding Help , University of Limerick, <i>*Created</i>

SERVICE

CHI **AC**, 2025
CHI **Reviewer**, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024
CHI LBW **Reviewer**, 2017, 2020
CHI Play **Reviewer**, 2019
CIKM **PC Member & Reviewer for Abstracts**, 2020
CSCW **Reviewer**, 2020, 2021, 2022, 2023
HCOMP **Reviewer**, 2017, 2019
IJHCI **Reviewer**, 2020
SIGIR **Reviewer**, 2018
WWW Dev **PC Member & Reviewer**, 2018
UIST **Reviewer**, 2018, 2021

PRESS AND MEDIA

2023 **Readability Matters**, Readability Community Interview: Dr. Shaun Wallace
2023 **The Washington Post**, What's your type? Try these tests to pick the perfect font for you.
2022 **Nielsen Norman Group**, Best Font for Online Reading: No Single Answer
2022 **Prolific**, Conduct your best research
2022 **Fast Company**, Are some fonts ageist?
2022 **Adobe**, Blog post: Readability Research: This New Field Can Help Us All Read Better
2021 **Adobe**, Blog post: Read different: User-centered approaches improve reading for all
2021 **Adobe**, Blog post: Re-imagining Reading
2021 **Readability Matters**, A Collaborative Interdisciplinary Readability Research Approach
2021 **Readability Matters**, Optimizing Electronic Health Records Through Readability
2021 **Hacker News**, Computer Science Open Rankings
2021 **South by Southwest: Digital Reading Rulers**, * Presented by Collaborator
2021 **Axe-Con: Virtual Readability Lab & Digital Reading Rulers**, * Presented by Collaborator
2020 **Adobe MAX: This Changes Everything: New Approaches to Reading**, * Presented by Collaborator
2020 **Fast Company**, Finalist for Fast Company's Annual List of World-Changing Ideas
2020 **EdTech Center World Education**, Readability Features & Technology for Better Reading
2020 **Readability Matters**, Individual Differences in Font Preference & Effectiveness
2020 **Readability Matters**, Using the Virtual Readability Lab with College Students
2020 **Readability Matters**, Virtual Readability Lab Launched
2020 **Readability Matters**, Accelerating Adult Readers With Typeface
2019 **Readability Matters**, Towards Readability Individuation...

AWARDS

2022 **illumi Award**, UserTesting.com
2021 **Fast Company's Annual List of World-Changing Ideas**, Fast Company
2020 **1st Place in the Just Do It Category - Digital Reading Rulers**, Adobe Hackweek
2020 **Sigma Xi Honor Society**, Brown University
2017 **Graduate Fellowship**, Brown University
2009 **President's Letter for Academic Excellence**, University of Limerick
2008 **Golden Key International Honor Society**, University of Rhode Island
2004 **Beta Gamma Sigma Honor Society**, University of Rhode Island

Research Systems and Datasets

Drafty: A Smarter Wiki for Data

System

AN INTELLIGENT WEB-BASED SPREADSHEET WHERE UNPAID CONTRIBUTORS MAINTAIN EVOLVING DATA

App: <https://drafty.cs.brown.edu>
Code: <https://github.com/brownhci/drafty>

CS Open Rankings

System

A META RANKER USING REAL-TIME DATA FROM CS PROFESSORS AS ONE OF ITS SOURCES

App: <https://drafty.cs.brown.edu/csopenrankings>

Computer Science Faculty Dataset

Data

OVER 5000 CS FACULTY PROFILES FROM TOP US AND CANADIAN UNIVERSITIES

Data: <https://drafty.cs.brown.edu/csprofessors>

Sketchy

System

A REMOTE ASYNCHRONOUS SKETCHING CLASSROOM

App: <https://sketchy.cs.brown.edu>
Code: <https://github.com/brownhci/sketchy-1.0>

Subjective Binary Labels for Sketches

LABELED INSPIRATIONAL SKETCHES FROM UI/UX CLASSROOMS

Data: <https://github.com/brownhci/sketchy-1.0/tree/master/data>

Data

The Virtual Readability Lab

PERSONALIZED READABILITY EXPERIMENTS IN THE WILD

App: <https://readabilitylab.xyz>

System

PolyMu JS Library

OPTIMIZED LOAD TIME, INDEXING, AND SCROLLING OF MASSIVE HTML TABLES

App: <https://github.com/pengzhengyi/polymu>

Library

** Mentored Undergraduate Student*

FontView Web App

EXTRACTING ACCURATE FONT ATTRIBUTES FROM VECTOR PATHS

App: <https://font-metrics.herokuapp.com>

Code: <https://github.com/TianyuanCai/font-metrics>

System