

# Shaun Wallace

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## Education

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### Brown University, Dept. of Computer Science

Providence, RI

PHD CANDIDATE COMPUTER SCIENCE (EXPECTED 2022)

Current

- Advisor: Jeff Huang
- Thesis: Asynchronous Collaboration Systems for Evolving Information

### Brown University, Dept. of Computer Science

Providence, RI

MSC COMPUTER SCIENCE

2017

- Advisor: Jeff Huang

### 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
- Thesis System: Spectralis, the first real-time interactive example of Adaptive FM Synthesis

### University of Rhode Island, College of Business

Kingston, RI

BSC MANAGEMENT SCIENCE & INFORMATION SYSTEMS, SUMMA CUM LAUDE

2008

## Professional Experience

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### Research Intern

Cambridge, MA

ADOBE, CREATIVE INTELLIGENCE LAB

Jul 2019 - Current

- Helped to create the Readability Consortium involving Adobe, Google, UCF, & Readability Matters.

### Lead Systems Programmer

Providence, RI

BROWN UNIVERSITY, DEPT. OF COMPUTER SCIENCE

Jan 2018 - Current

- Develop new automated knowledge base and APIs from data streams.
- Mentor staff, perform code reviews, and lead collaborations across the university.

### Senior Application Developer

Providence, RI

BROWN UNIVERSITY, ICERM

Mar 2011 - Aug 2017

- Development team manager and lead role for design & development, of all web apps and data services.
- Technical lead of the central NSF Math Institutes web applications & data services.

### RPS Group

South Kingstown, RI

SOFTWARE DEVELOPER

Jul 2010 - Nov 2010

- Develop beta of Oil Map Web software used by various governments.
- Added cross-talk communication between components in the ArcGIS framework.

### University of Rhode Island, Division of Student Affairs

Kingston, RI

WEB DEVELOPER

Jan 2010 - Jun 2010

- Serve on Technology & Communications Committee for Division of Student Affairs.
- Work with 23 departments to develop new websites.

### University of Rhode Island, Conference Services & Special Program Development

Kingston, RI

WEB DEVELOPER

May 2005 - Dec 2009

- Develop over 30 conference registration systems, data, and websites per year.
- Manage student workers.

## Publications

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

to appear at [TOCHI \[Journal\]](#)

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

### **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 2021](#)

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 2020 \[Journal\]](#)

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

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

[CHI 2020 LBW](#)

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

### **Drafty: Enlisting Users to be Editors who Maintain Structured Data**

[HCOMP 2017](#)

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

### **Visualizing Self-Trackd Mobile Sensor and Self-Reflection Data to Help Sleep Clinicians Infer Patterns**

[CHI 2017 LBW](#)

WALLACE S., SASSON D., GUO H.

## Publications In-Submission

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### **Asynchronous Collaboration Systems for Evolving Information**

[CHI Doctoral Consortium 2022](#)

WALLACE S.

### **FontMART: A Personalized Font Recommender to Increase Reading Speed**

[CSCW 2022](#)

CAI T.\*, WALLACE S.\*, REZVANIYAN T., DOBRES J., KERR B., BERLOW S., HUANG J., SAWYER B., BYLINSKII Z.

(\*CO-FIRST AUTHORS)

### **Readability Research: An Interdisciplinary Approach**

[PLOS ONE](#)

27\* CO-AUTHORS CONTRIBUTED EQUALLY

## Presentations

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### POSTER ABSTRACTS

### **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

- 2021 **Adobe Readability Research Symposium**, Personalizing Fonts to Increase Reading Speed
- 2021/22 **Adobe Tech Summit**, Inventing Beyond Barriers: Readability Research & Impact
- 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

## Mentorship, Teaching, Service, Awards, & Press

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### MENTORSHIP

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

- Current **Long Do**<sup>2</sup>, Brown University
- Current **Diana Lee**<sup>2</sup>, Brown University
- 2020 **Alice Marbach**<sup>2</sup>, Brown University
- 2019-20 **Matthew Bejtlich**, Rhode Island School of Design
- 2019-20 **Zhengyi Peng**<sup>2</sup>, Brown University, *now at Microsoft*
- 2018-19 **Brendan Le**<sup>1,2</sup>, Brown University, *now at Uncountable*
- 2019 **Michael Bardakji**, Brown University, *now at Vetcove*
- 2018-19 **Neilly Tan**<sup>1,2</sup>, Brown University, **now a PhD at Univ. of Washington**
- 2018 **Ari Kintisch**<sup>+</sup>, Brown University, *now at Squarespace*
- 2018 **Andrew Park**, Brown University, *now a Masters Student at Brown*
- 2017-18 **Gabrielle Bufrem**<sup>1</sup>, Brown University, *now at Pivotal Labs*
- 2017-18 **Aman Haq**<sup>1,2</sup>, Brown University, *now at Microsoft*
- 2017 **Linda Chang**<sup>1,2</sup>, Brown University, *now at Nasdaq*
- 2017 **Aarathi Anbalagan**<sup>2</sup>, Brown University, *now at Microsoft*
- 2017 **Abraham Peterkin**<sup>1</sup>, Brown University, *now at Nickelodeon*
- 2017 **Yirui Huang**<sup>\*1</sup>, Brown University & Univ. of Toronto, *now at Univ. of Edinburgh*
- 2016 **Marianne Aubin-Le Quere**<sup>1,2,3</sup>, Brown University, **now a PhD at Cornell**
- 2016 **Lucy Van Kleunen**<sup>1,2,3</sup>, Brown University, **now a PhD at Univ. Colorado**

### TEACHING

- 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

### TRAINING

- 2021 **Sheridan Teaching Center - Teaching Portfolio**, Brown University
- 2021 **Certificate I: Sheridan Teaching Seminar - Reflective Teaching**, Brown University
- 2016 **Teaching Assistant Diversity Sensitivity Training**, Brown University
- 2016 **Leadership Certification Program**, Brown University

### VOLUNTEER

- 2021 **PhD Office Hours**, Brown University, *\*Co-Created*
- 2017-18 **First Year PhD Mentorship Program**, Brown University
- 2017 **Student Volunteer**, HCOMP
- 2008-09 **After Hours Coding Help**, University of Limerick, *\*Created*

### SERVICE

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

## AWARDS

- 2021 **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

## PRESS AND MEDIA

- 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...

## Research Systems and Datasets

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### 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 4000 CS FACULTY PROFILES FROM 100 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

Data

LABELED INSPIRATIONAL SKETCHES FROM UI/UX CLASSROOMS  
Data: <https://github.com/brownhci/sketchy-1.0/tree/master/data>

### The Virtual Readability Lab

System

PERSONALIZED READABILITY EXPERIMENTS IN THE WILD  
App: <https://readabilitylab.xyz>

### PolyMu JS Library

Library

OPTIMIZED LOAD TIME, INDEXING, AND SCROLLING OF MASSIVE HTML TABLES  
App: <https://github.com/pengzhengyi/polymu>

\* Mentored Undergraduate Student

### FontView Web App

System

EXTRACTING ACCURATE FONT ATTRIBUTES FROM VECTOR PATHS  
App: <https://font-metrics.herokuapp.com>  
Code: <https://github.com/TianyuanCai/font-metrics>