

# Jeff Huang

Assistant Professor  
Computer Science  
Brown University

<http://jeffhuang.com>

## Education

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- 2008 – 2013      **Ph.D. in Information Science**  
Dissertation: Modeling User Behavior and Attention in Search  
**Master of Science, Information Science**  
University of Washington at Seattle
- 2002 – 2007      **Master of Science, Computer Science**  
**Bachelor of Science, Computer Science** with Business Minor  
University of Illinois at Urbana-Champaign

## Industry Positions

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- 2009 – 2012      **Microsoft** Research      4-Time Research Intern
- 2010 – 2011      **World Blender** (Techstars-funded startup)      Co-Founder
- 2010      **Google** Ad Planner      Software Engineer Intern
- 2007 – 2009      **Yahoo** Cloud Computing      Senior Software Engineer
- 2006      **Google** AdSpam      Software Engineer Intern
- 2004 – 2005      **Microsoft** Project      2-Time Software Engineer Intern
- 2003 – 2004      **Microsoft** University Relations      Student Consultant
- 2002 – 2003      **Motorola** GSM      2-Time System Test Intern

## Teaching Positions

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- 2016      **Brown University** Computer Science      Instructor  
Graduate-level Personal Informatics seminar
- 2014 – 2015, 2018      **Brown University** Computer Science      Instructor  
Graduate-level Human-Computer Interaction seminar
- 2013 – 2017      **Brown University** Computer Science      Instructor  
Undergraduate-level User Interface course
- 2010      **University of Washington** Information School      Co-Instructor  
Graduate-level Information Retrieval course
- 2008 – 2010      **University of Washington** Information School      Teaching Assistant  
Masters & undergrad classes: HCI, Databases, Information Retrieval, and others
- 2006      **University of Illinois** Computer Science      Teaching Assistant  
Two Undergraduate-level CS 101 labs (C & Matlab on Linux)

## Computer Science Conference Papers

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### Lessons Learned from Two Cohorts of Personal Informatics Self-Experiments

UbiComp 2017, published through PACM IMWUT, 1(3). 24.9% acceptance

Nediyana Daskalova, Karthik Desingh, Alexandra Papoutsaki, Diane Schulze, Heather Sha, Jeff Huang

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

HCOMP 2017, 186–196. 28.9% acceptance

Shaun Wallace, Lucy Van Kleunen, Marianne Aubin-Le Quere  
Abraham Peterkin, Yirui Huang, Jeff Huang

### SearchGazer: Scalable Webcam Eye Tracking for Remote Studies of Web Search

CHIIR 2017, 17–26. 42% acceptance, **Best Paper Finalist**

Alexandra Papoutsaki, James Laskey, Jeff Huang

### SleepCoacher: A Personalized Automated Self-Experimentation System for Sleep Recommendations

UIST 2016, 347–358. 20.6% acceptance

Nediyana Daskalova, Danaë Metaxa-Kakavouli  
Adrienne Tran, Nicole Nugent, Julie Boergers, John McGeary, Jeff Huang

### WebGazer: Scalable Webcam Eye Tracking Using User Interactions

IJCAI 2016, 3839–3845. 25% acceptance

Alexandra Papoutsaki, Patsorn Sangkloy  
James Laskey, Nediyana Daskalova, Jeff Huang, James Hays

### Crowdsourcing from Scratch: A Pragmatic Experiment in Data Collection by Novice Requesters

HCOMP 2015, 140–149. 30% acceptance, **Best Paper Finalist**

Alexandra Papoutsaki, Hua Guo  
Danae Metaxa-Kakavouli, Connor Gramazio, Jeff Rasley, Wenting Xie, Guan Wang, Jeff Huang

### Masters of Control: Behavioral Patterns of Simultaneous Unit Group Manipulation in StarCraft 2

CHI 2015, 3711–3720. 23% acceptance

Eddie Yan, Jeff Huang, Gifford Cheung

### A Strategy-Aware Technique for Learning Behaviors from Discrete Human Feedback

AAAI 2014, 937–943. 28% acceptance

Robert Loftin, James MacGlashan, Bei Peng  
Matthew Taylor, Michael Littman, Jeff Huang, David Roberts

### Mastering the Art of War: How Patterns of Gameplay Influence Skill in Halo

CHI 2013, 695–704. 20% acceptance, **Best Paper Finalist**

Jeff Huang, Thomas Zimmermann,  
Nachiappan Nagappan, Charles Harrison, Bruce Phillips

### RevMiner: An Extractive Interface for Navigating Reviews on a Smartphone

UIST 2012, 3–12. 21.5% acceptance

Jeff Huang, Oren Etzioni, Luke Zettlemoyer, Kevin Clark, Christian Lee

### Improving Searcher Models Using Mouse Cursor Activity

SIGIR 2012, 195–204. 20% acceptance

Jeff Huang, Ryen White, Georg Buscher, Kuansan Wang

### User See, User Point: Gaze and Cursor Alignment in Web Search

CHI 2012, 1341–1350. 23% acceptance

Jeff Huang, Ryen White, Georg Buscher

### No Search Result Left Behind: Branching Behavior with Browser Tabs

WSDM 2012, 203–212. 20.7% acceptance

Jeff Huang, Thomas Lin, Ryen White

### Large-Scale Analysis of Individual and Task Differences in Search Result Page Examination Strategies

WSDM 2012, 373–382. 20.7% acceptance

Georg Buscher, Ryen White, Susan Dumais, Jeff Huang

### Remix and Play: Lessons from Rule Variants in Texas Hold'em and Halo 2

CSCW 2012, 559–586. 39% acceptance (revise & resubmit process)

Gifford Cheung, Jeff Huang

### Interactive Search Support for Difficult Web Queries

ECIR 2012, 37–49. 21% acceptance

Abdigani Diriye, Giridhar Kumaran, Jeff Huang

- No Clicks, No Problem: Using Cursor Movements to Understand and Improve Search  
CHI 2011, 1225–1234. 26% acceptance, **Best Paper Finalist** Jeff Huang, Ryen White, Susan Dumais
- Starcraft from the Stands: Understanding the Game Spectator  
CHI 2011, 763–772. 26% acceptance Gifford Cheung, Jeff Huang
- Optimal Strategies for Reviewing Search Results  
AAAI 2010, 1321–1326. 26.9% acceptance Jeff Huang, Anna Kazeykina
- Assessing the Scenic Route: Measuring the Value of Search Trails in Web Logs  
SIGIR 2010, 587–594. 16.7% acceptance, **Best Paper Award** Ryen White, Jeff Huang
- Studying Trailfinding Algorithms for Enhanced Web Search  
SIGIR 2010, 443–450. 16.7% acceptance Adish Singla, Ryen White, Jeff Huang
- Conversational Tagging in Twitter  
Hypertext 2010, 173–177. 35% acceptance Jeff Huang, Katherine Thornton, Efthimis Efthimiadis
- Parallel Browsing Behavior on the Web  
Hypertext 2010, 13–17. 35% acceptance Jeff Huang, Ryen White
- Analyzing and Evaluating Query Reformulation Strategies in Web Search Logs  
CIKM 2009, 77–86. 14.5% acceptance, **Best Student Paper Finalist** Jeff Huang, Efthimis Efthimiadis
- Graphstract: Minimal Graphical Help for Computers  
UIST 2007, 203–212. 17% acceptance Jeff Huang, Michael Twidale

## Computer Science Journal Papers

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- An Analysis of Automated Visual Analysis Classification: Interactive Visualization Task Inference of Cancer Genomics Domain Experts  
Transactions on Visualization and Computer Graphics, to appear. Connor Gramazio, Jeff Huang, David Laidlaw
- Master Maker: Understanding Gaming Skill through Practice and Habit from Gameplay Behavior  
Topics in Cognitive Science (2017), 9(2), 437–466. Jeff Huang, Eddie Yan, Gifford Cheung  
Nachiappan Nagappan, Thomas Zimmerman
- Strokes of Insight: User Intent Detection and Kinematic Compression of Mouse Cursor Trails  
Information Processing & Management (2016), 52(6), 989–1003. Daniel Martín-Albo, Luis Leiva  
Jeff Huang, Réjean Plamondon
- Learning Behaviors via Human-Delivered Discrete Feedback  
Journal of Autonomous Agents and Multi-Agent Systems (2016), 30(1), 30–59. Robert Loftin, Bei Peng  
James MacGlashan, Michael Littman, Matthew Taylor, Jeff Huang, David Roberts
- Representing Uncertainty in Graph Edges: An Evaluation of Paired Visual Variables  
Transactions on Visualization and Computer Graphics (2015), 21(10), 1173–1186. Hua Guo, Jeff Huang  
David Laidlaw
- Building a Better Mousetrap: Compressing Mouse Cursor Activity for Web Analytics  
Information Processing & Management (2015), 51(2), 114–129. Luia A. Leiva, Jeff Huang

## Other Publications

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Mobile Health Intervention Development Principles: Lessons from an Adolescent Cyberbullying Intervention

Proceedings of HICSS 2018

Megan Ranney, Sarah Pittman, Alison Riese  
Michele Ybarra, Jeff Huang, Anthony Spirito, Rochelle Rosen

Gameplay Data Plays Nicer When Divided into Cohorts

Chapter in Perspectives on Data Science for Software Engineering (2016), Morgan Kaufmann Jeff Huang

Understanding the Role of Social Environment and Early Symptoms of PTSD in Adolescents Following Physical Trauma

American College of Physicians National Meeting 2016 Anjali Chandra, Megan Ranney, Jeff Huang  
Thomas Chun, Anthony Spirito, Susan Duffy, Nicole Nugent

Learning Something from Nothing: Leveraging Implicit Human Feedback Strategies

RO-MAN 2014

Robert Loftin, Bei Peng, James MacGlashan  
Michael Littman, Matthew Taylor, Jeff Huang, David Roberts

Influence of Gameplay on Skill in Halo Reach

CHI Games User Research Workshop 2013

Jeff Huang, Thomas Zimmermann,  
Nachiappan Nagappan, Charles Harrison, Bruce Phillips

Web User Interaction Mining from Touch-Enabled Mobile Devices

HCIR Workshop 2012

Jeff Huang, Abdigani Diriye

On the Value of Page-Level Interactions in Web Search

HCIR Workshop 2011

Jeff Huang

Studying Query Reformulation Strategies in Search Logs

ASIS&T 2009 Poster Paper

Jeff Huang, Efthimis Efthimiadis

Query Formulation in Web Search

ASIS&T 2009 Panel

Efthimis Efthimiadis, Jeff Huang, Amanda Spink, Jim Jansen

Mystery Meat revisited: Spam, Anti-Spam Measures and Digital Redlining

Webology 5(1), 2007

Christopher Lueg, Jeff Huang, Michael Twidale

Mystery Meat: Where does spam come from, and why does it matter?

EICAR 2006, 150–163

Christopher Lueg, Jeff Huang, Michael Twidale

Graphical Abstract Help

CHINZ 2005, 83–89

Jeff Huang, Bo Lu, Michael Twidale

## Funding

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NIH R01 2017. *Non-Suicidal Self-Injury in children: Brain/behavior alterations and risk for Suicidal Behavior*. Co-I, with Daniel Dickstein.

Balsamiq 2017. User Interfaces and User Experience Sponsorship. Sole PI.

NSF 2017. *EAGER: Computationally and Socially Guided Self-Experiments*. Sole PI.

Seed Award 2017. *Automated Sleep Recommendations Over a 10 Year Sleep Study*. Sole PI.

Adobe and Balsamiq 2016. User Interfaces and User Experience Sponsorship. Sole PI.

Fidelity Foundation 2016. *Fidelity Research Project on User Experience*. Sole PI.

NIH R21 2016. *Bullying Prevention Intervention for Adolescent Primary Care Patients*. Co-I, with Megan Ranney, Subaward amount.

NIH Administrative Supplement 2016. *Biomarkers, Social and Affective Predictors of Suicidal Thoughts and Behaviors in Adolescents*. Co-I, with Nicole Nugent.

NIH R01 2016. *Understanding the Interplay of Social Context and Physiology on Psychological Outcomes in Trauma-Exposed Adolescents*. Co-I, with Nicole Nugent.

NSF CAREER Award 2016. *Modeling User Touch and Motion Behaviors for Adaptive Interfaces in Mobile Devices*. Sole PI.

NSF CRII 2015. *Scalable Webcam Eyetracking by Learning from User Interactions*. Sole PI.

Salomon Award 2015. *Learning Eye Tracking Through User Interactions on Mobile Devices*. Sole PI.

Google Research Award 2012. *Cursor Mining in Web Search*. Co-PI, with Jacob Wobbrock.

Microryza Crowdfunding 2012. *How do spammers harvest your e-mail address?*. Sole PI.

## Awards

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CHIIR 2017 Best Paper Finalist

NSF CAREER Award 2016

HCOMP 2015 Best Paper Finalist

Facebook Graduate Fellowship 2012–2013 “*Mining Richer Interactions from Web Users*”

CHI 2013 Best Paper Finalist (top 5% of submitted papers)

CHI 2011 Best Paper Finalist (top 5% of submitted papers)

SIGIR 2010 Best Paper Award (top 1 of 520 submitted papers)

CIKM 2009 Best Student Paper Finalist

## Professional Service

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**Conference Paper Chair:** CHIIR 2018

**Conference Track Chair:** SIGIR 2018

**Conference Local Chair:** WSDM 2012

**Program Committee:** CHIIR 2017 & 2016, CHI 2016, SIGIR 2016 & 2010, WWW 2015 & 2013 & 2011, SIGIR Best Paper Award Committee 2015, ICWSM Posters 2011, SIGIR Posters 2009

**Conference Reviewing:** DIS 2018, CHI 2017, UIST 2016 & 2015, CHI 2015, CHI 2014, CSCW 2014, IUI 2013, CHI 2013, CHI 2013 Posters, HCIR 2011, HICSS 2011, InfoVis 2011, CIKM 2009, ECIR 2009

**Journal Reviewing:** ACM Transactions on the Web (TWEB), Journal of the American Society for Information Science and Technology (JASIST), ACM Transactions on Knowledge and Data Engineering (TKDE), Topics of Cognitive Science (TopiCS), Transactions of Information Systems (ToIS), International Journal of Human-Computer Interaction (IJHCI)

**NSF Review Panel:** 2016, 2018

**Student Volunteer:** WWW 2012, CHI 2012 & 2007, CSCW 2012, AoIR 2011, AAAI 2010, ASIST 2009