RESEARCH STATEMENT
I create novel design techniques and build interactive systems to provide support for creativity, interactivity, and accessibility. Specifically, I primarily study mechanical mechanisms for the digital fabrication of kinetic objects, develop intelligent design workflows for the integration of electronics into fabricated artifacts, and explore fabrication-assisted designs for the improvement of accessibility. In my research, I apply an interdisciplinary approach: (i) investigating mechanical, material, and electronic properties to inform novel design techniques; (ii) developing design techniques and systems to enable design and customization; and (iii) driving application domains using design techniques and systems.

EDUCATION
Present  PhD student, Computer Science & Engineering, University of Washington
2017  PhD student, Computer Science, University of Maryland, College Park
Area: digital fabrication, TUI, HCI; Advisor: Prof. Jon E. Froehlich
2015  MS, Computational Design, Carnegie Mellon University, Pittsburgh
Area: TUI, HCI; Thesis advisor: Eric Brockmeyer
MS Thesis: SqueezaPulse - Adding Interactive Input Using Passive Pulses of Air
2013  MS, Computer Science and Technology, UCAS, Beijing
Area: TUI, HCI; Advised by Prof. Danli Wang
MS Thesis: A Tangible Approach for Storytelling
2010  BEng, Software Engineering, Beihang University (BUAA), Beijing

HONORS AND AWARDS
2019  Winner, CHI’19 SV t-shirt design contest
2018  Finalist, Amazon Catalyst Award
2017  Best Paper Award, CHI’17
2016  Conference Travel Funding, Department of Computer Science, UMD
2016  Best Late-Breaking Work Paper Award, CHI’16
2015/16  Dean’s fellowship, Department of Computer Science, UMD
2014  Conference Travel Funding, School of Architecture, CMU
2013/14  Department Scholarship, School of Architecture, CMU
2014  Most Creative Award, UIST’14 Student Innovation Contest
2015  Honorable Mentions Award, CHI’15
2015  Winner, CHI’15 SV t-shirt design contest
2012  Winner, G-Startup 2012 Seed Stage, Global Mobile Internet Conference’12
2011  Follow-up, Software Design, Microsoft Imagine Cup Local Final
2009  China National Scholarship (Top 1%)

PROFESSIONAL EXPERIENCE

Summer 2019  HP Labs, Palo Alto, CA
Research Intern, Artificial Intelligence & Emerge Computing Lab
Mentored by Rafael ‘Tico’ Ballagas.

2017 – 2019  University of Washington, CSE, Seattle, WA
Graduate Research Assistant.
Advised by Prof. Jon E. Froehlich.

Summer 2016  Microsoft Research, Redmond, WA
Research Intern. VIBE Group
Mentored by Rob DeLine and Saleema Amershi.

2015 – 2017  University of Maryland, CS Department, College Park, MD
Graduate Research Assistant.
Advised by Prof. Jon E. Froehlich.

Summer 2014  KEIO-NUS CUTE Center, Singapore
Research Intern.
Advised by Prof. Ellen Yi-Luen Do and Prof. Beryl Plimmer.

Spring 2014  Art Fab, School of Architecture, Carnegie Mellon University, PA
Graduate Research Assistant.
Advised by Prof. Ali Momeni.

2010 – 2013  HCI Lab, Institute of Software, Chinese Academy of Sciences, Beijing
Research Assistant.
Advised by Prof. Danli Wang.

Spring 2010  Microsoft Research Asia, Beijing
Part-time Student Intern. University Relationship Group
Mentored by Bei Li.

REFEREED JOURNAL PUBLICATION


REFEREED CONFERENCE PUBLICATIONS


Best Paper Award [Top 1%]


Honorable Mentions Award

REFEREED EXTENDED ABSTRACTS/POSTERS


PATENT


SOFTWARE COPYRIGHT


THESES


TALKS


2017 [TA.03] Industry Affiliates Research Day at UW, Seattle, WA, 2017


GUEST LECTURE/WORKSHOP


TEACHING


Froehlich).


2016  [TE.03] **CMSC 250: Discrete Structures.** Department of Computer Science, University of Maryland, College Park, MD, 2016.

[TE.02] **CMSC 132: Object-Oriented Programming II.** Department of Computer Science, University of Maryland, College Park, MD, 2016.


**STUDENT ADVISING AND MENTORSHIP**

University of Washington, Seattle, WA

*Undergraduate & Graduate Research Advisees*

2020  Yawen Zheng (undergrad; Media Art; Tsinghua University)
2020  Yuebing Liang (MS; Architecture; Tsinghua University)
2020  Soumya Jindal (MS; Human Centered Design & Engineering)
2020  Lily Zhao (undergrad; Computer Science & Engineering)
2019  Ofek Inbar (undergrad; Computer Science & Engineering)
2019  Jessica Chin (undergrad; Computer Science & Engineering)
2019  Sophie Tian (undergrad; Computer Science & Engineering)
2019  Michelle Lin (undergrad; Computer Science & Engineering)

University of Maryland, College Park, MD

*Undergraduate Research Advisees*

2017  Joshua Land (Mechanical Engineering)

**PROFESSIONAL ACTIVITIES/SERVICE**

Reviewer  DIS’20, UIST’19, CHI’16 – ’20, WAC’19, TEI’17 – ’18, IDC’17, MobileHCI’16

Volunteer  TEI’17, CHI’14 – ’15, UIST’14, China Symposium on HCI

Program Committee  CHI’19, ’20 LBW

Conference Organizer  Web Co-chair, UIST’19

**PROFESSIONAL SKILLS**

HCI Research  Interview, survey, usability testing, qualitative & quantitative analysis
<table>
<thead>
<tr>
<th>Category</th>
<th>Skills/Tools</th>
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</thead>
<tbody>
<tr>
<td>Programming</td>
<td>C/C++, C#, Java, JavaScript, XHTML, CSS, iOS, Python, SQL</td>
</tr>
<tr>
<td>Hardware/Tools</td>
<td>CAD/CAM, digital prototyping, PCB making, hand tools</td>
</tr>
<tr>
<td>Design</td>
<td>Adobe Creative Suite, Rhinoceros, Eagle, Sketching</td>
</tr>
<tr>
<td>Other</td>
<td>Painting, graphic design, calligraphy</td>
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