

Yue Jiang

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My work focuses on developing computational methods that understand, generate, and adapt UIs, while also simulating and predicting human behaviors. Drawing on my expertise in computer vision, deep learning, and UI design, I aim to enhance human capabilities by developing technologies that facilitate understanding, interaction, and manipulation of UIs across various devices while considering user needs and context.

Education

2025 Ph.D. in Intelligent Systems

Aalto University & Finnish Center for Artificial Intelligence (FCAI), Finland

- Meta PhD Fellowship (21 worldwide selected from 3,200+ applicants)

- Google Europe Students with Disabilities Scholarship (10 in Europe)

- Heidelberg Laureate Forum Young Researcher

Supervisors: Prof. Antti Oulasvirta and Prof. Vikas Garg

Jan 2024 Visiting Ph.D. Student

- May 2024 Human Computer Interaction Institute (HCII), Carnegie Mellon University, USA

Supervisor: Prof. Jeffrey Bigham

2020 Master of Science in Computer Graphics

University of Maryland, College Park, USA

Supervisor: Prof. Matthias Zwicker

2017 Honors Bachelor of Science in Computer Science Specialist and Mathematics Major (High Distinction) [Degree granted in 2018]

University of Toronto, Canada

Supervisor: Prof. Gerald Penn

Full Paper Publications

- [17] **Yue Jiang***, Zixin Guo*, Hamed Rezazadegan Tavakoli, Luis A. Leiva, Antti Oulasvirta. EyeFormer: Predicting Personalized Scanpaths with Transformer-Guided Reinforcement Learning. *In Proceedings of the 37th Annual ACM Symposium on User Interface Software and Technology (UIST2024)*.
- [16] Yi-Hao Peng, Faria Huq, **Yue Jiang**, Jason Wu, Amanda Li, Jeffrey P. Bigham, and Amy Pavel. DreamStruct: Understanding Slides and UIs via Programmable Synthetic Data Generation. *European Conference on Computer Vision (ECCV2024)*.
- [15] **Yue Jiang**, Changkong Zhou, Vikas Garg*, Antti Oulasvirta*. Graph4GUI: Graph Neural Networks for Representing Graphical User Interfaces. *In Proceedings of the 42nd Annual SIGCHI Conference on Human Factors in Computing Systems (CHI2024)*.
- [14] Maryam Taeb, Amanda Swearngin, Eldon Schoop, Ruijia Cheng, **Yue Jiang**, Jeffrey Nichols. AXNav: Replaying Accessibility Tests from Natural Language. *In Proceedings of the 42nd Annual SIGCHI Conference on Human Factors in Computing Systems (CHI2024)*.
- [13] **Yue Jiang**, Christof Lutteroth, Rajiv Jain, Christopher Tensmeyer, Varun Manjunatha, Wolfgang Stuerzlinger, Vlad Morariu. FlexDoc: Flexible Document Adaptation through Optimizing both Content and Layout. *In Proceedings of the IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC2024)*.

- [12] Yao Wang, **Yue Jiang**, Zhiming Hu, Constantin Ruhdorfer, Mihai Băce, Andreas Bulling. VisRecall++: Analysing and Predicting Visualisation Recallability from Gaze Behaviour. *In Proceedings of the ACM on Human-Computer Interaction (PACM-HCI). Presented at the 2024 ACM Symposium on Eye Tracking Research and Applications (ETRA2024).*
- [11] Parvin Emami, **Yue Jiang**, Zixin Guo, Luis A. Leiva. Impact of Design Decisions in Scanpath Modeling. *In Proceedings of the ACM on Human-Computer Interaction (PACM-HCI). Presented at the 2024 ACM Symposium on Eye Tracking Research and Applications (ETRA2024).*
- [10] **Yue Jiang**, Luis A. Leiva, Hamed Rezazadegan Tavakoli, Paul R. B. Houssel, Julia Kylmala, Antti Oulasvirta. UYeyes: Understanding Visual Saliency across User Interface Types. *In Proceedings of the 41st Annual SIGCHI Conference on Human Factors in Computing Systems (CHI2023).*
- [9] **Yue Jiang**, Marc Habermann, Vladislav Golyanik, Christian Theobalt. HiFECap: High-Fidelity and Expressive Capture of Human Performances from Monocular Videos. *In Proceedings of the 2022 British Machine Vision Virtual Conference (BMVC2022).*
- [8] Jiao Sun, Tongshuang Wu, **Yue Jiang**, Ronil Awalegaonkar, Xi Victoria Lin, Diyi Yang. Pretty Princess vs. Successful Leader: Gender Roles in Greeting Card Messages. *In Proceedings of the 40th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI2022 Best Paper Honorable Mention).*
- [7] **Yue Jiang**, Wolfgang Stuerzlinger, Christof Lutteroth. ReverseORC: Reverse Engineering of Resizable User Interface Layouts with OR-Constraints. *In Proceedings of the 39th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI2021).*
- [6] Karan Ahuja, **Yue Jiang**, Mayank Goel, Chris Harrison. Vid2Doppler: Synthesizing Doppler Radar Data from Videos for Training Privacy-Preserving Activity Recognition. *In Proceedings of the 39th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI2021).*
- [5] Zhicong Lu, **Yue Jiang**, Chenxinran Elise Shen, Margaret C Jack, Daniel Wigdor, Mor Naaman. Study of Perceptions of COVID-19 Misinformation in China. *In Proceedings of the 24th ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW2021).*
- [4] **Yue Jiang**, Dantong Ji, Zhizhong Han, Matthias Zwicker. SDFDiff: Differentiable Rendering of Signed Distance Fields for 3D Shape Optimization. *Conference on Computer Vision and Pattern Recognition (CVPR2020 Oral (Top 5%)).*
- [3] **Yue Jiang**, Wolfgang Stuerzlinger, Matthias Zwicker, Christof Lutteroth. ORCSolver: An Efficient Solver for Adaptive GUI Layout with OR-Constraints. *In Proceedings of the 38th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI2020).*
- [2] Zhicong Lu, **Yue Jiang**, Cheng Lu, Mor Naaman, Daniel Wigdor. The Government's Dividend: Complex Perceptions of Social Media Misinformation in China. *In Proceedings of the 38th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI2020).*
- [1] **Yue Jiang**, Ruofei Du, Christof Lutteroth, Wolfgang Stuerzlinger. ORCLayout: Adaptive GUI Layout with OR-Constraints. *In Proceedings of the 37th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI2019).*

In-Submission Full Papers

- [7] Aryan Garg*, **Yue Jiang*** (co-first author & project advisor), Antti Oulasvirta. Controllable GUI Generation. *(To be submitted to CHI2025).*
- [6] Zixin Guo*, **Yue Jiang*** (co-first author), Aini Putkonen, Luis Leiva, Antti Oulasvirta. Scanpath Prediction for Visual Search on Graphical User Interfaces. *(To be submitted to CVPR2025).*
- [5] **Yue Jiang**, Elham Sadr, Christof Lutteroth, Wolfgang Stuerzlinger. Layout-Less-Layout: The L^3 -Editor, a GUI Editor for Resizable Layouts. *(In submission to IJHCS).*
- [4] Aini Putkonen, **Yue Jiang**, Jingchun Zeng, Olli Tammilehto, Jussi P. P. Jokinen, Antti Oulasvirta. Understanding Visual Search in Graphical User Interfaces. *(In submission to IJHCS).*
- [3] Han Xiao, ..., **Yue Jiang**, ..., Wolfgang Stuerzlinger, Shengdong Zhao. AdaptVid: Adapting Video Lectures to Head-Mounted Displays. *(To be submitted to CHI2025).*

- [2] **Yue Jiang**, Eldon Schoop, Amanda Swearngin, Jeffrey Nichols. ILuvUI: Instruction-tuned LangUage-Vision modeling of UIs from Machine Conversations. (*To be submitted to IUI2025*).
- [1] Parvin Emami, **Yue Jiang**, Antti Oulasvirta, Luis A. Leiva. User Interface Optimization with Hierarchical Reinforcement Learning. (*To be submitted to IUI2025*).

Workshop Papers, Extended Abstracts, and Doctoral Consortium

- [12] **Yue Jiang**. Computational Representations for Graphical User Interfaces. In *Proceedings of the 42st Annual SIGCHI Conference on Human Factors in Computing Systems (CHI2024 Doctoral Consortium)*.
- [11] **Yue Jiang**, Eldon Schoop, Amanda Swearngin, Jeffrey Nichols. ILuvUI: Instruction-tuned LangUage-Vision modeling of UIs from Machine Conversations. In *Proceedings of the 42st Annual SIGCHI Conference on Human Factors in Computing Systems (CHI2024 Workshop Paper)*.
- [10] Busra Asan, Lena Hegemann, **Yue Jiang (project advisor)**, Antti Oulasvirta. Suggesting Colors for UI Designs with Graph Neural Networks. In *Proceedings of the 42st Annual SIGCHI Conference on Human Factors in Computing Systems (CHI2024 Workshop Paper)*.
- [9] **Yue Jiang***, Yuwen Lu*, Tiffany Kneare, Clara E Kliman-Silver, Christof Lutteroth, Toby Jia-Jun Li, Jeffrey Nichols, Wolfgang Stuerzlinger. Computational Methodologies for Understanding, Automating, and Evaluating User Interfaces. In *Proceedings of the 41st Annual SIGCHI Conference on Human Factors in Computing Systems (CHI2024 Extended Abstract)*.
- [8] **Yue Jiang**, Yuwen Lu, Christof Lutteroth, Toby Jia-Jun Li, Jeffrey Nichols, Wolfgang Stuerzlinger. The Future of Computational Approaches for Understanding and Adapting User Interfaces. In *Proceedings of the 41st Annual SIGCHI Conference on Human Factors in Computing Systems (CHI2023 Extended Abstract)*.
- [7] Yao Wang, Ludwig Sidenmark, Teresa Hirzle, **Yue Jiang**, Andreas Bulling. 8th International Workshop on Pervasive Eye Tracking and Mobile Eye-based Interaction (PETMEI). *ACM Symposium of Eye Tracking Research and Applications (ETRA2023 Extended Abstract)*.
- [6] Garreth Tigwell, **Yue Jiang**. Disability Semantics for Academic Writing. *AccessSIGCHI*, 2023.
- [5] **Yue Jiang**, Luis A. Leiva, Hamed Rezazadegan Tavakoli, Paul R. B. Houssel, Julia Kylmala, Antti Oulasvirta. U Eyes: An Eye-Tracking Dataset across User Interface Types. In *Proceedings of the 41st Annual SIGCHI Conference on Human Factors in Computing Systems (CHI2023 Workshop Paper)*.
- [4] Lena Hegemann, **Yue Jiang**, Joon-Gi Shin, Yi-Chi Liao, Markku Laine, Antti Oulasvirta. Computational Assistance for User Interface Design: Smarter Generation and Evaluation of Design Ideas. In *Proceedings of the 41st Annual SIGCHI Conference on Human Factors in Computing Systems (CHI2023 Interactivity)*.
- [3] **Yue Jiang***, Yuwen Lu*, Jeffrey Nichols, Wolfgang Stuerzlinger, Chun Yu, Christof Lutteroth, Yang Li, Ranjitha Kumar, Toby Jia-Jun Li. Computational Approaches for Understanding, Generating, and Adapting User Interfaces. In *Proceedings of the 40th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI2022 Extended Abstract)*.
- [2] **Yue Jiang**, Vikas Garg, Antti Oulasvirta. Designer-in-the-Loop Layout Autocompletion with Graph Neural Networks. *Finnish Center for Artificial Intelligence AI Day Extended Abstract*, 2022
- [1] **Yue Jiang**. DocShop: Bringing Document Content to Life. *Adobe Research Project Expo*, 2020

Patent

- [1] **Yue Jiang**, Vlad Morariu, Christopher Tensmeyer, Rajiv Jain, Varun Manjunatha. Responsive Document Using OR Constraint Optimization (Under Review)

Organized Workshops

- [4] **Yue Jiang***, Yuwen Lu*, Tiffany Kneare, Clara E Kliman-Silver, Christof Lutteroth, Toby Jia-Jun Li, Jeffrey Nichols, Wolfgang Stuerzlinger. Computational Methodologies for Understanding, Automating, and Evaluating User Interfaces. (*CHI2024*).
- [3] **Yue Jiang**, Yuwen Lu, Christof Lutteroth, Toby Jia-Jun Li, Jeffrey Nichols, Wolfgang Stuerzlinger. The Future of Computational Approaches for Understanding and Adapting User Interfaces. (*CHI2023*).
- [2] Yao Wang, Ludwig Sidenmark, Teresa Hirzle, **Yue Jiang**, Andreas Bulling. 8th International Workshop on Pervasive Eye Tracking and Mobile Eye-based Interaction (PETMEI). (*ETRA2023*).
- [1] **Yue Jiang***, Yuwen Lu*, Jeffrey Nichols, Wolfgang Stuerzlinger, Chun Yu, Christof Lutteroth, Yang Li, Ranjitha Kumar, Toby Jia-Jun Li. Computational Approaches for Understanding, Generating, and Adapting User Interfaces. (*CHI2022*).

Academic Service (Program Committee / Session Chair)

- 2025 **Associate Chair (AC)**, Full Paper, CHI2025
- 2024 **Accessibility Co-Chair**, CHI2024
- 2024 **Associate Chair (AC)**, CHI2024 Late-Breaking Work (SIGCHI Short Paper)
- 2024 **Committee Member**, ASSETS 2024 Experience Reports
- 2024 **Session Chair**, Gaze Interaction in Immersive Environments, CHI2024
- 2024 **Session Chair**, AI and UI Design, CHI2024
- 2024 **HCI Master Program Admission Committee Member**, Aalto University, Finland
- 2024 **Ph.D. Admission Committee Member**, Finnish AI Center, Finland
- 2023 **Accessibility Co-Chair**, CHI2023
- 2023 **Program Committee Member**, AI and HCI Workshop, ICML2023
- 2023 **Workshop Juror**, CHI2023 Workshop
- 2023 **Associate Chair (AC)**, CHI2023 Late-Breaking Work (SIGCHI Short Paper)
- 2023 **Session Chair**, Human AI Collaboration, CHI2023
- 2023 **Session Chair**, Text Input and Textual Communication, CHI2023
- 2023 **Program Committee Member**, IUI2023
- 2023 **Co-Organizer & Poster Chair**, HelsinCHI Symposium 2023
- 2023 **Organizing Committee Member & Keynote Chair**, ELLIS Doctoral Symposium 2023
- 2023 - Now **Member — ACM AccessSIGCHI**
- 2023 **Ph.D. Admission Committee Member**, Finnish AI Center, Finland
- 2022 **Associate Chair (AC)**, CHI2022 Late Breaking Work (SIGCHI Short Paper)
- 2022 **Co-Host**, ACM SIGCHI Conference on Designing Interactive Systems (DIS2022) Ask-Me-Anything
- 2021 **Session Chair**, Interaction and Touch Session, MobileHCI
- 2021 - 2023 **ACM SIGGRAPH Research Development Committee — DEI and Accessibility**
- 2021 - Now **Co-Organizer - Seminar of HCI for Chinese HCI Researchers around the World**
- 2021 **Ph.D. & Master Admission Committee Member**, University of Maryland, College Park, USA
- 2021 **Program Committee Member (PC)**, ACM IUI2021 Demos and Posters
- 2021 **Associate Chair (AC)**, CHI2021 Late-Breaking Work (SIGCHI Short Paper)
- 2020 **Ph.D. & Master Admission Committee Member**, University of Maryland, College Park, USA
- 2020 **Associate Chair (AC)**, CHI2020 Late-Breaking Work (SIGCHI Short Paper)
- 2019 **Ph.D. & Master Admission Committee Member**, University of Maryland, College Park, USA
- Nov 2019 **Graduate Mentor for Technica Research Bootcamp**, USA
- March 2019 **Ph.D Student Panel Leader for Prospective Students**, University of Maryland, USA
- Nov 2018 **Graduate Mentor for Technica Research Bootcamp**, USA

2016 **Department of Mathematics Ambassador**, University of Toronto, Canada

Academic Reviews and Awards (Reviewed 125 submissions)

- 2024 **Special Recognitions for Outstanding Reviews for CHI2024**
- 2022 **Special Recognitions for Outstanding Reviews for UIST2022**
- 2021 **Special Recognitions for Outstanding Reviews for CHI2021**
- 2020 - 2024 SIGCHI Conference on Human Factors in Computing Systems (CHI)
- 2019 - 2024 SIGCHI Late Breaking Work (CHI LBW)
- 2020 - 2024 ACM User Interface Software and Technology Symposium (UIST)
- 2022 - 2024 ACM Transactions on Computer-Human Interaction (TOCHI)
- 2022 - 2024 SIGCHI Workshop paper
- 2023 SIGCHI Workshop proposal
- 2023 ICML Workshop paper
- 2022 ACM SIGGRAPH
- 2022 ACM SIGGRAPH Asia
- 2022 International Symposium on Mixed and Augmented Reality (ISMAR)
- 2022 ACM Multimedia (MM)
- 2021 Computers & Graphics (C&C)
- 2020 Australian Computer-Human Interaction Conference (OzCHI)
- 2020 ACM International Conference on Interactive Surfaces and Spaces (ISS)
- 2020 ACM Symposium on Virtual Reality Software and Technology (VRST)
- 2020 IEEE Virtual Reality Conference (IEEE VR)
- 2019 IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
- 2019 Pacific Graphics (PG)
- 2019 IFIP Conference on Human-Computer Interaction (INTERACT)
- 2019 Graphics Interface (GI)

Grants and Honors

- 2024 **Heidelberg Laureate Forum Young Researcher**
- 2023 **Meta Research PhD Fellowship**
- 2022 **Google Europe Students with Disabilities Scholarship**
- 2021 - 2024 **Special Recognitions for Outstanding Reviews x 3 (CHI2021, UIST2022, CHI2024)**
- 2024 Finnish Center for Artificial Intelligence (FCAI) Travel Grant (22,000 Euros)
- 2022 - 2025 Finnish Center for Artificial Intelligence (FCAI) PhD Grants
- 2022 Best Paper Honorable Mention, CHI2022
- 2022 ACM SIGCHI Gary Marsden Travel Award (In-person)
- 2021 ACM SIGCHI Gary Marsden Travel Award (Virtual)
- 2020 Oral Paper Top 5%, CVPR2020
- Sept. 2020 Adobe Research Gift Grant for Document Intelligent Research (2020 Fall) (\$10,000)
- May 2020 Adobe Research Gift Grant for Document Intelligent Research (2020 Summer) (\$10,000)
- 2019 Jacob K. Goldhaber Travel Grant Award
- 2019 Department of Computer Science Travel Grant Award, University of Maryland
- 2018 - 2020 Graduate Dean's Scholarship, University of Maryland, College Park (\$10,000)
- Sept. 2018 Maryland Center For Women In Computing (MCWIC) Grace Hopper Scholarship
- 2014 - 2018 Dean's List Scholar x 4, University of Toronto

- 2014 - 2016 New College Council In-Course Scholarship x 2, University of Toronto
- 2014 - 2015 Award for Outstanding Achievement in Mathematical Expression and Reasoning for Computer Science, University of Toronto
- 2012 National Olympiad in Biology in Provinces, First Prize
- 2011 China Adolescents Science and Technology Innovation Contest, First Prize

Professional Experience and Internships

- Jan 2024 Visiting PhD Student
- May 2024 **Carnegie Mellon University**, USA
Supervisor: Prof. Jeffery Bigham
- June 2023 Research Intern
- Sept 2023 **Apple Inc.**, USA
Supervisor: Dr. Jeffery Nichols
- Oct 2020 Research Candidate
- 2021 **Max Planck Institute for Informatics (MPII)**, Germany
Supervisor: Prof. Christian Theobalt
- June 2020 Research Intern
- Aug 2020 **Carnegie Mellon University**, Pennsylvania, USA
Supervisor: Prof. Chris Harrison
- Mar 2020 Research Intern
- Aug 2020 **Adobe Research**, College Park, Maryland, USA
Supervisor: Dr. Vlad Morariu
- June 2019 Visiting Research Student
- Aug 2019 **Shenzhen University**, Shenzhen, China
Supervisor: Prof. Hui Huang & Prof. Daniel Cohen-Or
- May 2017 Software Engineer
- Apr 2018 **Intel Corporation**, San Jose, California, USA
- May 2016 Research Assistant
- Apr 2017 **University of Toronto**, Toronto, Canada
Supervisor: Prof. Gerald Penn

Teaching Experience

- May 2023 **Guest Lecturer** - Topic: Visual Perception, **Human Factors Engineering**
Aalto University
Instructor: Prof. Antti Oulasvirta
- Jan 2023 **Research Project Mentor** - **Research Project Course in Human-Computer Interaction**
- May 2023 Aalto University
Instructor: Prof. Antti Oulasvirta
- Nov 2022 **Guest Lecturer** - Topic: Visual Saliency, **Computational Design and Interaction**
Aalto University
Instructor: Prof. Antti Oulasvirta
- Oct 2021 **Co-Instructor** - **Seminar: Computing the User and their interface**
- Feb 2022 Saarland University
Instructors: Prof. Anna Maria Feit, Yue Jiang, Kevin Baum, Markus Langer

- Apr 2021 **Co-Supervisor - Seminar: Computer Vision and Machine Learning for Computer Graphics**
- Aug 2021 Max Planck Institute for Informatics
Instructors: Prof. Christian Theobalt, Dr. Mohamed Elgharib, Dr. Vladislav Golyanik
- Jan 2020 **Teaching Assistant - CMSC740 Advanced Computer Graphics**
- May 2020 Department of Computer Science, University of Maryland
Instructor: Prof. Matthias Zwicker
- Aug 2019 **Teaching Assistant - CMSC427 Computer Graphics**
- Dec 2019 Department of Computer Science, University of Maryland
Instructor: Prof. Matthias Zwicker
- Aug 2018 **Teaching Assistant - CMSC427 Computer Graphics**
- Dec 2018 Department of Computer Science, University of Maryland
Instructor: Prof. Matthias Zwicker
- Jan 2017 **Teaching Assistant - CSC263 Data Structures and Analysis**
- Apr 2017 Department of Computer Science, University of Toronto
Instructors: Prof. Sam Toueg and Prof. Francois Pitt
- Sept 2016 **Teaching Assistant - CSC263 Data Structures and Analysis**
- Dec 2016 Department of Computer Science, University of Toronto
Instructor: Prof. David Liu
- Jan 2016 **Teaching Assistant - CSC165 Mathematical Expression and Reasoning for Computer Science**
- Apr 2016 Department of Computer Science, University of Toronto
Instructors: Dr. Ilir Dema and Dr. Abdallah Farraj
- Sept 2015 **Peer Tutor - MAT223/224 Linear Algebra I & II**
- Apr 2016 Department of Mathematics, University of Toronto
- Sept 2015 **Peer Tutor - MAT137 Calculus**
- Apr 2016 Department of Mathematics, University of Toronto
- 2014 **Teaching Volunteer - High School Mathematics and Physics**
Qinyuan, Shanxi Province, China

--- Mentoring Experience

Students Mentored:

- 2024 Aryan Garg (Undergraduate student, IIT)
Topic: Visual Saliency Informed Controlled Synthesis of User Interfaces
- 2024 Amanda Li (Master's student, CMU)
Topic: Image Editing
- 2024 Elise Chenxinran Shen (Master's student, University of British Columbia)
Topic: Simulating Human Behaviors on Social Media
- 2023 Ananya Dutta (Undergraduate student, Manipal University Jaipur)
Topic: Scanpath-based UI Optimization
- 2023 Busra Asan (Master's student, Istanbul Technical University)
Topic: Color Optimization for UIs
- 2023 Changkong Zhou (Master's student, Aalto University)
Topic: UI Autocompletion
- 2023 Henrik Kauppi (Master's student, Aalto University)

- Topic: Scanpath Dataset for UI Transitions
- 2023 Lotta Merisaari (Master's student, Aalto University)
Topic: Scanpath Dataset for UI Transitions
- 2023 Yao Zhang (Master's student, Aalto University)
Topic: UI Embedding
- 2023 Elham Sadri (Master's student, Simon Fraser University)
Topic: Design and Evaluation of a New Editor for Responsive Graphical User Interfaces
- 2021 Kartik Teotia (Master's student, Max Planck Institute) [Seminar Supervisor]
Topic: NeRF and Signed Distance Field (SDF)
- 2020 Duotun Wang (Master's student, University of Maryland)
Topic: Signed Distance Field-Based Differentiable Sketching
- 2018, 2019 Graduate Mentor for Technica (All-Women Hackathon)
- 2018 - 2020 Graduate Mentor at Maryland Center For Women In Computing (MCWIC) Peer mentoring

Talks

- Aug 2024 **Revolutionizing UI Design: Computational Representations and AI Assistance**, University of Illinois Urbana-Champaign, USA (Hosted by Yun Huang)
- May 2024 **Computational UI Representation**, Stanford University, USA (Hosted by Yujie Tao)
- Apr 2024 **Understanding UIs and How People Interact with Them**, Massachusetts Institute of Technology, USA (Hosted by Stefanie Mueller)
- Apr 2024 **Understanding UIs and How People Interact with Them**, University of Rochester, USA (Hosted by Yukang Yan)
- Apr 2024 **Understanding UIs and How People Interact with Them**, Northeastern University, USA (Hosted by Dakuo Wang)
- June 28, 2023 **Computational Approaches for UI Understanding**, Google, USA (Hosted by Tiffany Knearem)
- Apr 13, 2023 **UEyes: Understanding Visual Saliency across User Interface Types**, HelsinCHI Symposium, Finland (Hosted by Antti Oulasvirta)
- Apr 13, 2023 **Demo: Computational Assistance for User Interface Design: Smarter Generation and Evaluation of Design Ideas**, HelsinCHI Symposium, Finland (Hosted by Antti Oulasvirta)
- Apr 12, 2023 **Computational Approaches for User Interfaces**, City University of Hong Kong, China (Hosted by Zhicong Lu)
- Apr 12, 2023 **UEyes: Understanding Visual Saliency across User Interface Types**, CHI Lux Seminar, Luxembourg (Hosted by Luis Leiva)
- Aug 24, 2022 **Computational Design – Optimization for Adaptive User Interfaces**, DELTA Summer Workshop 2022, Finland (Hosted by Jari Nurmi)
- Apr 8, 2022 **Adaptive User Interfaces**, Hasso Plattner Institute, Germany (Hosted by Ran Zhang & Patrick Paudisch)
- Mar 17, 2022 **Adaptive User Interfaces**, University of Luxembourg, Luxembourg (Hosted by Luis Leiva)
- Dec 7, 2021 **Adaptive User Interfaces and 3D Reconstruction**, ETH Zurich, Switzerland (Hosted by Christian Holz & Otmar Hilliges)
- Sept 27, 2021 **Adaptive User Interface**, Seminar of HCI for Chinese HCI Researchers
- Dec 2, 2020 **Adaptive GUI Layout**, DGP HCI Session, University of Toronto, Canada (Hosted by DGP Lab)
- Sept 4, 2020 **Responsive Document Using OR-Constraint Optimization**, Document Intelligence Lab Talk, Adobe Research, USA (Hosted by Vlad Morariu)
- Aug 18, 2020 **High-Speed, High-Accuracy, Low-Latency Touch Tracking**, Apple Annual Showcase for FIGLab, Apple & CMU, USA (Hosted by Chris Harrison)

- Aug 18, 2020 **Doppler Radar for Activity Recognition**, Apple Annual Showcase for FIGLab, Apple & CMU, USA (Hosted by Chris Harrison)
- July 31, 2020 **High-Speed, High-Accuracy, Low-Latency Touch Tracking**, FIGLab Research Review Presentation, Apple & CMU, USA (Hosted by Chris Harrison)
- July 31, 2020 **Doppler Radar for Activity Recognition**, FIGLab Research Review Presentation, Apple & CMU, USA (Hosted by Chris Harrison)
- July 14, 2020 **Document Layout with OR-Constraints**, Graphics Intelligence Lab Talk, Adobe Research, USA (Hosted by Paul Asente)
- June 27, 2020 **SDFDiff: Differentiable Rendering of Signed Distance Fields for 3D Shape Optimization**, DeeCamp AI Training Camp, AI Institute of Sinovation Ventures, China (Hosted by Ran Zhang (IST Austria))
- May 29, 2020 **ORCSolver: An Efficient Solver for Adaptive GUI Layout with OR-Constraints**, German CHI Week, German HCI, Germany (Hosted by Teresa Hirzle & Christina Schnegass)
- May 20, 2020 **ORCSolver: An Efficient Solver for Adaptive GUI Layout with OR-Constraints**, BathCHI 2020 Seminar, University of Bath, UK (Hosted by Christof Lutteroth)
- Dec 3, 2019 **ORC Layout: Adaptive GUI Layout with OR-Constraints**, Document Intelligence Lab Talk, Adobe Research, USA (Hosted by Vlad Morariu & Tong Sun)
- July 11, 2019 **ORC Layout: Adaptive GUI Layout with OR-Constraints**, Visual Computing Summer School 2019, Shenzhen University, China (Hosted by Hui Huang)
- May 15, 2019 **Signed Distance Function Based Differentiable Rendering**, Capital Graphics 2019, George Mason University, Arlington, VA, USA (Hosted by Yotam Gingold)
- May 2, 2019 **ORC Layout: Adaptive GUI Layout with OR-Constraints**, UMD HCI Lab BBL Talk, University of Maryland, USA
- April 4, 2019 **ORC Layout: Adaptive GUI Layout with OR-Constraints**, Human-Computer Interaction Lab 36th Annual Symposium, USA (Hosted by Niklas Elmqvist)
- April 1, 2019 **ORC Layout: Adaptive GUI Layout with OR-Constraints**, UMD HCI Lab SIGCHI Paper Talk Session, University of Maryland, USA (Hosted by Hernisa Kacorri)
- Jun 21, 2018 **Neural Programmer Interpreter**, Knowledge Representation and Reasoning Talk Session, University of Toronto, Canada (Hosted by Sheila McIlraith)
- Nov 8, 2016 **Vector Addition Systems Reachability Problem**, Mathematical Linguistics Talk Session, University of Toronto, Canada (Hosted by Gerald Penn)
- Oct 25, 2016 **Supertagging: A Non-Statistical Parsing-Based Approach**, Mathematical Linguistics Talk Session, University of Toronto, Canada (Hosted by Gerald Penn)
- Oct 3, 2016 **Reachability Problems for Vector Addition Systems**, University of Toronto Undergraduate Computer Theory Talk Session, University of Toronto, Canada
- July 20, 2016 **Reachability Problems and Vector Addition Tree Automata**, Undergraduate Summer Research Program (UGSRP) Talk, University of Toronto, Canada

Press Coverage

- May 11, 2021 **CMU researchers show potential of privacy-preserving activity tracking using radar** – TechCrunch
- May 8, 2019 **Eases the pain of multiple UI designs** – IT Works Solution
- May 7, 2019 **New open source software eases the pain of multiple UI designs** – Phys.org
- May 7, 2019 **New software eases the pain of multiple UI designs** – University of Bath, UK

Voluntary Experience

- May 2022 Student Volunteer for the SIGCHI Conference on Human Factors in Computing Systems (**CHI2022**), New Orleans, USA.

- Oct 2021 Student Volunteer for the ACM Symposium on User Interface Software and Technology (**UIST2021**) (Virtual).
- Sept 2021 Student Volunteer for the ACM International Conference on Mobile Human-Computer Interaction (**MobileHCI2021**), Toulouse, France (Virtual).
- Nov 2020 Student Volunteer for the ACM Interactive Surfaces and Spaces (**ISS2020**), Lisbon, Portugal (Virtual).
- April 2019 Student Volunteer for **Human-Computer Interaction Lab 36th Annual Symposium**, Maryland, USA
- May 2016 Volunteer for **Doors Open Toronto 2016**, City Cultural Events, Toronto, Canada

References

Prof. Antti Oulasvirta – Professor, Aalto University, Finland
Prof. Jeffrey Bigham – Associate Professor, Carnegie Mellon University, USA
Prof. Wolfgang Stuerzlinger – Professor, Simon Fraser University, Canada
Prof. Christof Lutteroth – Associate Professor, University of Bath, UK
Dr. Jeffrey Nichols – Research Scientist, Apple, USA
Prof. Vikas Garg – Assistant Professor, Aalto University, Finland