

Yue Jiang

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Drawing on my expertise in human-computer interaction, computer vision, and deep learning, I aim to develop human-centered technologies that enhance human capabilities by adapting to users and their contexts. By integrating computational models with domain knowledge, I develop AI models to enhance human capabilities while maintaining user control. These computational approaches enable UIs to dynamically adapt to users and their contexts, promoting effective human-AI collaboration.

Education

2025 **Aalto University & Finnish Center for Artificial Intelligence (FCAI), Finland**

Ph.D. in Electrical Engineering (Interactive Systems)

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

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

- **Nokia Scholarship**

- **Heidelberg Laureate Forum Young Researcher**

- **UCSD Data Science Rising Star** (30 worldwide)

Supervisors: Prof. Antti Oulasvirta and Prof. Vikas Garg

Jan 2024 **Human Computer Interaction Institute (HCII), Carnegie Mellon University, USA**

- May 2024 Visiting Ph.D. Student

Supervisor: Prof. Jeffrey Bigham

2020 **University of Maryland, College Park, USA**

Master of Science in Computer Science (Computer Graphics)

Supervisor: Prof. Matthias Zwicker

2017 **University of Toronto, Canada**

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

Supervisor: Prof. Gerald Penn

Professional Experience and Internships

June 2023 **Apple Inc.**, Seattle, Washington, USA

- Sept 2023 AI/ML Group Research Intern

Supervisor: Dr. Jeffery Nichols

- Developed a UI-centric instruction-following vision-language agent designed for performing UI-related tasks (Published at IUI2025).

Oct 2020 **Max Planck Institute for Informatics (MPII)**, Germany

- Dec 2021 Researcher

Supervisor: Prof. Christian Theobalt

- Proposed a human performance capture approach, which simultaneously captures human pose, clothing deformation, facial expression, and hand gestures from videos (Published at BMVC2022).

June 2020 **Carnegie Mellon University**, Pennsylvania, USA

- Aug 2020 Research Intern

Supervisor: Prof. Chris Harrison

- Developed a privacy-preserving activity recognition system based on Doppler radar data (Published at CHI2021).

Mar 2020 **Adobe Research**, College Park, Maryland, USA

– Aug 2020 Research Intern

Supervisor: Dr. Vlad Morariu

- Proposed a method for generating and optimizing dynamic content and layout to interactively adapt a document to various devices, author preferences, and viewer preferences. (Published at VL/HCC2024)

June 2019 **Shenzhen University**, Shenzhen, China

– Aug 2019 Visiting Graduate Research Student

Supervisor: Prof. Hui Huang & Prof. Daniel Cohen-Or

- Worked on differentiable rendering and sketching methods.

May 2017 **Intel Corporation**, San Jose, California, USA

– Apr 2018 Software Engineer

- Developed software tools for FPGA groups.

May 2016 **University of Toronto**, Toronto, Canada

– Apr 2017 Research Intern

Supervisor: Prof. Gerald Penn

- Worked on Lambek Categorical Grammar for practical parsing.

Full Paper Publications

Note: CHI, UIST, and CSCW are recognized as top-tier HCI conferences; CVPR and ECCV are top-tier Computer Vision conferences. VL/HCC is a prominent conference on programming tools, IUI is a top conference on AI for UI-related research, while ETRA is the largest conference focused specifically on eye tracking. The average acceptance rate for all of these conferences is approximately 25%.

- [19] **Yue Jiang**, Eldon Schoop, Amanda Swearngin, Jeffrey Nichols. ILuvUI: Instruction-tuned LangUage-Vision modeling of UIs from Machine Conversations. *The 30th Annual ACM Conference on Intelligent User Interfaces (IUI2025)*. [\[PDF\]](#)
- [18] Aini Putkonen, **Yue Jiang**, Jingchun Zeng, Olli Tammilehto, Jussi P. P. Jokinen, Antti Oulasvirta. Understanding Visual Search in Graphical User Interfaces. *International Journal of Human-Computer Studies (IJHCS2025)*.
- [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)*. [\[PDF\]](#)
- [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)*. [\[PDF\]](#)
- [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)*. [\[PDF\]](#)
- [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)*. [\[PDF\]](#)

- [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)*. [PDF]
- [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). [PDF]
- [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). [PDF]
- [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)*. [PDF]
- [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)*. [PDF]
- [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)*. [PDF]
- [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)*. [PDF]
- [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)*. [PDF]
- [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)*. [PDF]
- [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%))*. [PDF]
- [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)*. [PDF]
- [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)*. [PDF]
- [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)*. [PDF]

--- In-Submission Full Papers

- [5] Aryan Garg*, **Yue Jiang* (co-first author & project advisor)**, Antti Oulasvirta. Controllable GUI Generation. (*To submit to CHI2026*).
- [4] Zixin Guo*, **Yue Jiang* (co-first author)**, Aini Putkonen, Luis Leiva, Antti Oulasvirta. Scanpath Prediction for Visual Search on Graphical User Interfaces. (*To submit to CHI2026*).
- [3] **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*).

- [2] Han Xiao, Ashwin Ram, **Yue Jiang**, Rui Yao, Youqi Wu, Bowen Wang, Wolfgang Stuerzlinger, Shengdong Zhao. AdaptVid: Adapting Video Lectures to Head-Mounted Displays. (*In submission to IMWUT2025*).
- [1] Parvin Emami, **Yue Jiang**, Antti Oulasvirta, Luis A. Leiva. User Interface Optimization with Hierarchical Reinforcement Learning. (*To be submitted*).

Workshop Papers, Extended Abstracts, and Doctoral Consortium

- [13] **Yue Jiang***, Yuwen Lu*, Tiffany Kneare, Clara E Kliman-Silver, Christof Lutteroth, Jeffrey Nichols, Wolfgang Stuerzlinger. Designing and Developing User Interfaces with AI: Advancing Tools, Workflows, and Practices. *In Proceedings of the 42nd Annual SIGCHI Conference on Human Factors in Computing Systems (CHI2025 Extended Abstract)*.
- [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. UEyes: 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

- [5] **Yue Jiang***, Yuwen Lu*, Tiffany Kneareem, Clara E Kliman-Silver, Christof Lutteroth, Jeffrey Nichols, Wolfgang Stuerzlinger. Designing and Developing User Interfaces with AI: Advancing Tools, Workflows, and Practices. (*CHI2025*).
- [4] **Yue Jiang***, Yuwen Lu*, Tiffany Kneareem, 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
- 2025 **Program Committee Member**, Full Paper, IUI2025
- 2025 **Program Committee Member**, Poster and Demo, UIST2025
- 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 138 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 - 2025 SIGCHI Conference on Human Factors in Computing Systems (CHI)
- 2020 - 2025 ACM User Interface Software and Technology Symposium (UIST)
- 2022 - 2025 ACM Transactions on Computer-Human Interaction (TOCHI)
- 2022 - 2025 SIGCHI Workshop paper
- 2019 - 2024 SIGCHI Late Breaking Work (CHI LBW)
- 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

- 2023 **Meta Research PhD Fellowship**
- 2022 **Google Europe Students with Disabilities Scholarship**
- 2024 **Heidelberg Laureate Forum Young Researcher**
- 2024 **Nokia Scholarship**
- 2024 **UCSD Data Science Rising Star**
- 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

Teaching Experience

- Oct 2024 **Guest Lecturer** - Topic: Visual Saliency, **Computational Design and Interaction**
Aalto University
Instructor: Prof. Antti Oulasvirta
- 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

Invited Talks

- Oct 2024 **Toward Computational User Interfaces**, University of Waterloo, Canada (Hosted by Dan Vogel)
- Oct 2024 **Toward Computational User Interfaces**, University of Toronto, Canada (Hosted by Fanny Chevalier)
- Oct 2024 **Effective Computational Representation for AI-Assisted UI Design**, Columbia University, USA (Hosted by Brian A. Smith)
- Oct 2024 **Effective Computational Representation for AI-Assisted UI Design**, University of Cambridge, UK
- 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 Kneare)
- 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

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Dr. Jeffrey Nichols – Research Scientist, Apple, USA, jeff@jeffreynichols.com