Yue Jiang

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Website: https://yuejiang-nj.github.io/
LinkedIn: www.linkedin.com/in/yuejianguoft
Google Scholar: shorturl.at/zDN56

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 **Ph.D. in Intelligent Systems**
Aalto University & Finnish Center for Artificial Intelligence (FCAI), Finland
- **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 - May 2024 **Visiting Ph.D. Student**
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

Professional Experience and Internships

June 2023 – Sept 2023 Research Intern
Apple Inc., USA
Supervisor: Dr. Jeffery Nichols
- Developed a UI-centric instruction-following vision-language agent designed for performing UI-related tasks.

Oct 2020 – 2021 Research Candidate
Max Planck Institute for Informatics (MPII), Germany
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 – Aug 2020 Research Intern
Carnegie Mellon University, Pennsylvania, USA

Supervisor: Prof. Chris Harrison

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

Mar 2020 – Aug 2020 Research Intern
Adobe Research, College Park, Maryland, USA
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 – Aug 2019 Visiting Research Student
Shenzhen University, Shenzhen, China
Supervisor: Prof. Hui Huang & Prof. Daniel Cohen-Or
- Worked on differentiable rendering and sketching methods.

May 2017 – Apr 2018 Software Engineer
Intel Corporation, San Jose, California, USA
- Developed software tools for FPGA groups.

May 2016 – Apr 2017 Research Intern
University of Toronto, Toronto, Canada
Supervisor: Prof. Gerald Penn
- Worked on Lambek Categorial 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, while ETRA is the largest conference focused specifically on eye tracking. The average acceptance rate for all of these conferences is approximately 25%.

[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 Bâce, Andreas Bulling. VisRecall++: Analysing and Predicting Visualisation Recallability from Gaze Bahaviour. *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. UEyes: 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

[7] Aryan Garg*, **Yue Jiang* (co-first author & project advisor)**, Antti Oulasvirta. Controllable GUI Generation. (***In submission 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. (***In submission 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. (***IJHCS Minor Revision***).

[3] 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***).

[2] **Yue Jiang**, Eldon Schoop, Amanda Swearngin, Jeffrey Nichols. ILuvUI: Instruction-tuned LangUage-Vision modeling of UIs from Machine Conversations. (***In Submission to IUI2025***).

[1] Parvin Emami, **Yue Jiang**, Antti Oulasvirta, Luis A. Leiva. User Interface Optimization with Hierarchical Reinforcement Learning. (***To be submitted to Siggraph2025 Conference Paper Track***).

Workshop Papers, Extended Abstracts, and Doctoral Consortium

[13] **Yue Jiang***, Yuwen Lu*, Tiffany Knearem, 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 Knearem, 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*

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[1] **Yue Jiang**. DocShop: Bringing Document Content to Life. *Adobe Research Project Expo, 2020*

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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 Knearem, 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 Knearem, 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
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 Univerity, 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)
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

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 – May 2023	**Research Project Mentor** - **Research Project Course in Human-Computer Interaction** 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 – Feb 2022	**Co-Instructor** - **Seminar: Computing the User and their interface** Saarland University Instructors: Prof. Anna Maria Feit, Yue Jiang, Kevin Baum, Markus Langer
Apr 2021 – Aug 2021	**Co-Supervisor** - **Seminar: Computer Vision and Machine Learning for Computer Graphics** Max Planck Institute for Informatics Instructors: Prof. Christian Theobalt, Dr. Mohamed Elgharib, Dr. Vladislav Golyanik
Jan 2020 – May 2020	**Teaching Assistant** - CMSC740 **Advanced Computer Graphics** Department of Computer Science, University of Maryland Instructor: Prof. Matthias Zwicker
Aug 2019 – Dec 2019	**Teaching Assistant** - CMSC427 **Computer Graphics** Department of Computer Science, University of Maryland Instructor: Prof. Matthias Zwicker
Aug 2018 – Dec 2018	**Teaching Assistant** - CMSC427 **Computer Graphics** Department of Computer Science, University of Maryland Instructor: Prof. Matthias Zwicker
Jan 2017 – Apr 2017	**Teaching Assistant** - CSC263 **Data Structures and Analysis** 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 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

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