

Yue Jiang

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Education

- 2022 - **Ph.D. in Intelligent Systems**
Aalto University & Finnish Center for Artificial Intelligence (FCAI), Finland
Supervisors: Prof. Antti Oulasvirta and Prof. Vikas Garg
- 2018 - 2020 **Master of Science in Computer Graphics**
University of Maryland, College Park, USA
Supervisor: Prof. Matthias Zwicker
- 2014 - 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

Publications

- [10] **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)*.
- [9] **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 39th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI2022 Workshop Organization)*.
- [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 39th 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)*.

Patent

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

Demo

- [1] **Yue Jiang**. DocShop: Bringing Document Content to Life (Mentor: Vlad Morariu). *2020 Adobe Research Project Expo*

Professional Experience and Internship

- Oct 2020 Research Candidate
- Mar 2022 **Max Planck Institute for Informatics (MPII), Germany**
 - Supervisor: Prof. Christian Theobalt
 - Developed a system for high-fidelity and expressive capture of human performances from monocular videos (A paper in submission).
- June 2020 Research Intern
- Aug 2020 **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 Research Intern
- Aug 2020 **Adobe Research**, College Park, Maryland, USA
 - Supervisor: Dr. Vlad Morariu
 - Document Intelligence Lab.
 - Created a new document layout with dynamic viewing. (A paper in submission)
- June 2019 Visiting Research Student
- Aug 2019 **Shenzhen University**, Shenzhen, China
 - Supervisor: Prof. Hui Huang & Prof. Daniel Cohen-Or
 - Worked on differentiable sketching methods.
- May 2017 Software Engineer
- April 2018 **Intel Corporation**, San Jose, California
 - Programmable Intellectual Property Engineering (PIPE) Infrastructure Group.
 - Developed software tools for all the FPGA IP groups at Intel.
- May 2016 Research Assistant
- Apr 2017 **University of Toronto**, Toronto, Canada
 - Supervisor: Prof. Gerald Penn
 - Worked on vector addition tree automata and reachability problem for vector addition systems
 - Explored the correctness of an algorithm about Lambek Categorical Grammar for Practical Parsing.

Academic Service (Program Committee / Session Chair)

- 2023 **Accessibility Co-Chair**, CHI2023
- 2023 **Associate Chair (AC)**, CHI2023 Workshop
- 2023 **Associate Chair (AC)**, CHI2023 Late Breaking Work (SIGCHI Short Paper)
- 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 Session
- 2021 **Session Chair**, Interaction and Touch Session, MobileHCI
- 2021 - Now **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 Service and Awards (Reviewed 62 papers)

- 2022 **Special Recognitions for Outstanding Reviews for UIST2022**
- 2021 **Special Recognitions for Outstanding Reviews for CHI2021**
- 2020 - 2022 SIGCHI Conference on Human Factors in Computing Systems (CHI)
- 2020 - 2022 ACM User Interface Software and Technology Symposium (UIST)
- 2019 - 2022 SIGCHI Late Breaking Work (CHI LBW)
- 2022 ACM SIGGRAPH
- 2022 ACM SIGGRAPH Asia
- 2022 ACM Transactions on Computer-Human Interaction (TOCHI)
- 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 Honours

- 2022 Google Europe Students with Disabilities Scholarship
- 2022 Finnish Center for Artificial Intelligence (FCAI) Grants

- 2022 ACM SIGCHI Gary Marsden Travel Award (In-person)
- 2021 ACM SIGCHI Gary Marsden Travel Award (Virtual)
- Sept. 2020 Adobe Research Gift Grant for Document Intelligent Research (\$10,000)
- May 2020 Adobe Research Gift Grant for Document Intelligent Research (\$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, University of Toronto
- 2014 - 2016 New College Council In-Course Scholarship, 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

Invited Talks

- 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)
- May, 2020 **SDFDiff: Differentiable Rendering of Signed Distance Fields for 3D Shape Optimization**, Technical Paper Talk at CVPR2020 Session in 3D from Multiview and Sensors, Seattle, USA

- May, 2020 **ORCSolver: An Efficient Solver for Adaptive GUI Layout with OR-Constraints**, Technical Paper Talk at CHI2020 Session in GUI Design, Honolulu, USA
- 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 7, 2019 **ORC Layout: Adaptive GUI Layout with OR-Constraints**, Technical Paper Talk at CHI2019 Session in Intelligent Systems and Interfaces, Glasgow, UK (Hosted by Claudio Pinhanez (IBM))
- 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

Teaching Experience

- Oct 2022 **Teaching Assistant - Computational Design and Interaction**
- Dec 2022 Aalto University
Instructors: 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**
U of Toronto Touching Lives Overseas, Qinyuan, Shanxi Province, China

Mentoring Experience

Students Mentored:

- 2022 Haiyi Wang (Research master student at Aalto University) [Master Thesis Advisor]
- 2021 Kartik Teotia (Research master student at Max Planck Institute for Informatics) [Seminar supervisor]
- 2020 Duotun Wang (Research master student at University of Maryland)
- 2018, 2019 **Graduate Mentor for Technica (All-Women Hackathon)**
- 2018 - 2020 **Graduate Mentor at Maryland Center For Women In Computing (MCWIC) Peer mentoring**

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 **Accessibility 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

Technical Skills

Programming: Python, C/C++, Java, Matlab, Perl, CUDA

Other Tools: PyTorch, TensorFlow, OpenGL, OpenCV, Numpy, Scipy, NLTK, Scikit-learn, LaTeX, SQL, Splunk, SVN, Github, Perforce, Unity, Fusion360, 3D Max