Yue Jiang

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

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

[11] **Yue Jiang**, Christof Lutteroth Rajiv Jain, Christopher Tensmeyer, Varun Manjunatha, Wolfgang Stuerzlinger, Vlad Morariu. ORCDoc: Adaptive Documents through Optimizing both Content and Layout. (**In submission to TOCHI**).

[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***).

[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***).

Workshop Organization

[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. *In Proceedings of the 41st Annual SIGCHI Conference on Human Factors in Computing Systems* (***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). *ACM Symposium of Eye Tracking Research and Applications* (***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. *In Proceedings of the 40th Annual SIGCHI Conference on Human Factors in Computing Systems* (***CHI2022***).

Patent

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

Workshop Papers and Demos

[3] 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* (***In Submission to CHI2023***).

[2] **Yue Jiang**, Vikas Garg, Antti Oulasvirta. Designer-in-the-Loop Layout Autocompletion with Graph Neural Networks. *Finnish Center for Artificial Intelligence AI Day, 2022*

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

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Academic Service (Program Committee / Session Chair)

2024 **Accessibility Co-Chair**, CHI2024

2023 **Accessibility Co-Chair**, CHI2023

2023 **Workshop Jury**, 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 82 submissions)

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 - 2023 SIGCHI Workshop paper
2023 SIGCHI Workshop proposal
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

2023 - 2025 Meta PhD Fellowship
2022 Google Europe Students with Disabilities Scholarship
2022 Finnish Center for Artificial Intelligence (FCAI) Grants
2022 Best Paper Honorable Mention, CHI2022
2022 Special Recognitions for Outstanding Reviews for UIST2022
2022 ACM SIGCHI Gary Marsden Travel Award (In-person)
2021 Special Recognitions for Outstanding Reviews for CHI2021
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 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 Internship

Oct 2020 – Mar 2022 Research Candidate

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 (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

- Document Intelligence Lab.

- Created a new document layout with dynamic viewing. (A paper in submission)

June 2019 – Aug 2019 Visiting Research Student

Shenzhen University, Shenzhen, China

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

- Worked on differentiable sketching methods.

May 2017 – April 2018 Software Engineer

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 – Apr 2017 Research Assistant

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 Categorial Grammar for Practical Parsing.

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)
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

Teaching Experience

Jan 2023 – May 2023 **Research Project Mentor - Research Project in Human-Computer Interaction**
Aalto University
Instructor: Prof. Antti Oulasvirta

Oct 2022 – Dec 2022 **Guest Lecturer - 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 – Dec 2016 **Teaching Assistant** - CSC263 **Data Structures and Analysis**
Department of Computer Science, University of Toronto
Instructor: Prof. David Liu

Jan 2016 – Apr 2016 **Teaching Assistant** - CSC165 **Mathematical Expression and Reasoning for computer Science**
Department of Computer Science, University of Toronto
Instructors: Dr. Ilir Dema and Dr. Abdallah Farraj

Sept 2015 – Apr 2016 **Peer Tutor** - MAT223/224 **Linear Algebra I & II**
Department of Mathematics, University of Toronto

Sept 2015 – Apr 2016 **Peer Tutor** - MAT137 **Calculus**
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:

2023 Yao Zhang (Master student, Aalto University)
Topic: UI Autocompletion

2023 Changkong Zhou (Master student, Aalto University)
Topic: UI Optimization Based on Scanpath Prediction

2023 Henrik Kauppi (Master student, Aalto University)
Topic: Scanpath Dataset for UI Transitions

2023 Lotta Merisaari (Master student, Aalto University)
Topic: Scanpath Dataset for UI Transitions

2021 Kartik Teotia (Master student, Max Planck Institute) [Seminar Supervisor]
Topic: NeRF and Signed Distance Field (SDF)

2020 Duotun Wang (Master 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**

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

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