

# Jixiang Fan

PH.D. CANDIDATE · COMPUTER SCIENCE · HUMAN-COMPUTER INTERACTION

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## Education

### Virginia Tech

Virginia, USA

#### PH.D. - COMPUTER SCIENCE

2021.08 - present

- Chair: Dr. D. Scott McCrickard
- Committee: Dr. Stephen H. Edwards
- Committee: Dr. Calvin J. Ribbens
- Committee: Dr. Manuel A. Pérez-Quiñones
- Committee: Dr. Alannah Oleson

### Virginia Tech

Virginia, USA

#### M.S. - COMPUTER SCIENCE

2018.08 - 2020.05

- Chair: Dr. D. Scott McCrickard
- Committee: Dr. Andrey Esakia
- Committee: Dr. Clifford A. Shaffer

### University of Maryland - College Park

Maryland, USA

#### B.S. - COMPUTER SCIENCE

2014.08 - 2018.05

### University of Maryland - College Park

Maryland, USA

#### B.S. - ECONOMICS

2014.08 - 2018.05

## Certifications

Spring  
2024

Future Professoriate Certificate, Graduate School

Virginia Tech

## Teaching Experiences

Fall 2024 CS3604 Professionalism in Computing - 98 undergraduates, Leading Instructor

Virginia Tech

Fall 2023 CS3604 Professionalism in Computing - 86 undergraduates, Leading Instructor

Virginia Tech

## Research Experiences

### Virginia Tech

Blacksburg, VA

#### ADVISOR: DR. SCOTT MCCRICKARD

2022 - Present

- Dissertation: "Leveraging Diary Studies as a Pedagogical Tool: Advancing Human-Computer Interaction Education"

### Virginia Tech

Blacksburg, VA

#### Co-ADVISORS: DR. SCOTT MCCRICKARD, DR. SAMANTHA M HARDEN

2021 - 2022

- Project: "FitEx - an evidence-based, 8-week, statewide walking and fruit/vegetable consumption program delivered to teams of individuals across the state."

### Virginia Tech

Blacksburg, VA

#### ADVISOR: DR. SCOTT MCCRICKARD

2018 - 2020

- Master Thesis: "FitAware - Fitness Group Tracking & Motivation System (IOS Application Development)"

## Professional Experiences

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### INDUSTRY EXPERIENCES

- 2020.06-2021.06 **Software Developer Engineer**, Full-time | Pactera Microsoft O365 Team | Seattle | United States
- 2019.06-08 **Solutions Engineer**, Internship | Pactera Inc | Seattle | United States
- 2015.05-08 **UI & UX Designer**, Internship | NTT Data Corporation | Shanghai | China

### ACADEMIC EXPERIENCES

- 2025.08-12 **Graduate Teaching Assistant**, CS4094 Nature HCI CS Capstone | Virginia Tech
- 2025.01-05 **Graduate Teaching Assistant**, CS1114 Introduction to Software Design (**leading lab sessions**) | Virginia Tech
- 2024.06-07 **Graduate Teaching Assistant**, CS3724 Introduction to Human-Computer Interaction | Virginia Tech
- 2024.01-05 **Graduate Teaching Assistant**, CS5714 Usability Engineering | Virginia Tech
- 2024.12-01 **Graduate Teaching Assistant**, CS3604 Professionalism in Computing | Virginia Tech
- 2023.01-05 **Graduate Teaching Assistant**, CS3724 Introduction to Human-Computer Interaction | Virginia Tech
- 2022.08-12 **Graduate Teaching Assistant**, CS5724 Models and Theories of Human-Computer Interaction | Virginia Tech
- 2022.06-07 **Graduate Teaching Assistant**, CS2114 Software Design & Data Structures (**leading lab sessions**) | Virginia Tech
- 2022.01-05 **Graduate Teaching Assistant**, CS5525 Data Analytics I | Virginia Tech
- 2021.08-12 **Graduate Teaching Assistant**, CS1114 Introduction to Software Design (**leading lab sessions**) | Virginia Tech
- 2020.01-05 **Graduate Teaching Assistant**, CS3114 Data Structures & Algorithms | Virginia Tech
- 2019.08-12 **Graduate Teaching Assistant**, CS5525 Data Analytics I | Virginia Tech

## Publications

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### CONFERENCE FULL PAPERS

- [SIGCSE TS 2025] **Fan, J.**, Haqq, D., Saaty, M., Wang, W. L., & McCrickard, S. (2025). Diary Study as an Educational Tool: An Experience Report from an HCI Course. Proceedings of the 56th ACM Technical Symposium on Computer Science Education (SIGCSE TS 2025), V. 1, 311–317. Association for Computing Machinery.
- [CSCW 2025] Wang, W.-L., Andrus, N., Hassan, T., **Fan, J.**, Cao, Y., Asante, J., Saaty, M., Haqq, D., & McCrickard, D. S. (2025). Writing home from afar: Connecting distant families through sharing of outdoor experiences with digital diaries. In Proceedings of the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2025).
- [EduCHI 2025] **Fan, J.**, Wang, W.L., Andrus, N., Cao, Y., Saaty, M., Ghasemi, S., Xia, L. and McCrickard, S., 2025, July. Enhancing HCI Capstone Courses Through Diary Study Methods: Feedback and Insights from Graduate-Undergraduate Collaboration. In Proceedings of the 7th Annual Symposium on HCI Education (pp. 1-9).
- [IEEE FIE 2025] **Fan, J.**, Cao, Y., Wang, W. L., Andrus, N., Saaty, M., Ghasemi, S., Xia, L., Liu, S., & McCrickard, S. (2025). Enhancing Cross-level Collaboration in HCI Education through Diary Studies. Frontiers in Education 2025
- [IEEE FIE 2025] Oh, S., Zhao, J., Russo, C., Bolmer, M., Jeong, J., **Fan, J.**, Cao, Y., Wang, W. L., Andrus, N., & McCrickard, S. (2025). Optimizing Diary Studies Learning Outcomes with Fine-tuned Large Language Models on the DiaryQuest Platform. Frontiers in Education 2025.
- [IASDR 2025] Xia, L., Li, X., **Fan, J.**, & Fan, L. (2025). Designing AR-Based Warehouse Management Systems Using the PECE Framework: A Comparative User Study of Interface Performance and Experience. Proceedings of the IASDR 2025 Conference, Taipei, Taiwan, December 2–5, 2025.
- [EduCHI 2024] **Fan, J.**, Saaty, M., & McCrickard, D. S. (2024, June). Education in HCI Outdoors: A Diary Study Approach. In Proceedings of the 6th Annual Symposium on HCI Education (pp. 1-10).
- [IEEE FIE 2024] **Fan, J.**, Saaty, M., Dunlap, D., & McCrickard, D. S. (2024, October). Investigating an Automatic Assistant in Computer Ethics Education. Frontiers in Education 2024, Washington DC, USA.
- [IEEE FIE 2024] Haqq, D., **Fan, J.**, Saaty, M., Wang, W. L., Andrus, N., & McCrickard, D. S. (2024, October). Understanding Development of Social Games Through Diary Studies. Proceedings of the Frontiers in Education 2024, Washington DC, USA.
- [HCII 2024] Xia, L., Qin, Y., & **Fan, J.** (2024, June). Amplifying Language Learning Effects with Olfactory-Enhanced Virtual Reality: An Empirical Study. In International Conference on Human-Computer Interaction (pp. 190-204). Cham: Springer

Nature Switzerland.

## CONFERENCE SHORT PAPERS

- [CHI 2025] **Fan, J.**, Cao, Y., Saaty, M., Wang, W. L., Xia, L., Liu, H., & McCrickard, D. S. (2025, April). Understanding the Creation of Human-Virtual Entity Bonds through the AR Mobile Game Peridot. In Proceedings of the Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (pp. 1-7).
- [ICER 2025] **Fan, J.**, & McCrickard, S. (2025, August). Diary Studies as a Pedagogical Tool for Human-Computer Interaction Education. In Proceedings of the 2025 ACM Conference on International Computing Education Research V. 2 (pp. 11-11).
- [CSCW 2025] **Fan, J.**, Zhao, J., Oh, S., Bolmer, M., Lee, Y., Flammer, N., Chen, Y., & McCrickard, D. S. (2025). Structuring collaborative reflection: Integrating diary study and focus group discussion (Poster). In Proceedings of the ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW 2025). ACM.
- [CHI 2025] Cao, Y., Hassan, T., **Fan, J.**, Saaty, M., Wang, W. L., Stelter, T. L., & McCrickard, S. (2025, April). Listening to the Wild: Risk and Preparedness in Hiker-Wildlife Conflicts during Outdoor Recreation. In Proceedings of the Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (pp. 1-8).
- [CHI Play 2023] Wang, W. L., Haqq, D., Saaty, M., Cao, Y., **Fan, J.**, Patel, J. V., & McCrickard, D. S. (2023, October). Chatterbox Opener: A Game to Support Healthy Communication and Relationships. In Companion Proceedings of the Annual Symposium on Computer-Human Interaction in Play (pp. 43-48).

## MENTORED UNDERGRADUATE ACM STUDENT RESEARCH COMPETITION

- [SIGCSE TS 2025] Zhao, J., Horrall, J., Gaudian, W., Jordan, P., Chavan, P., Rana, A., & Snr, Y. (2025). DiaryQuest: A Web-Based Learning System Utilizing Diary Study. Proceedings of the 56th ACM Technical Symposium on Computer Science Education (SIGCSE TS 2025), V. 2, 1765. Association for Computing Machinery.
- [CHI 2025] Oh, S., Zhao, J., Russo, C., & Bolmer Jr, M. (2025, April). Boosting Diary Study Outcomes with a Fine-Tuned Large Language Model. In Proceedings of the Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (pp. 1-7).

## Presentations

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### PANEL

McCrickard, D. S., Olsen, M., Seyam, M., Shrestha, C., & **Fan, J.** (2024). Making Voices Heard: Classroom Tools and Techniques for Augmenting Student Opinions. Panel discussion presented at the ACM Capital Region Celebration of Women in Computing (CAPWIC 2024), University of Virginia, April 6, 2024.

### WORKSHOP PRESENTATIONS

**Fan, J.** (2025). Integrating Disability Considerations into Design Raising Awareness and Building Inclusivity. Oral presentation: SIGCSE TS 2025, Pennsylvania, United States.

### PAPER PRESENTATIONS

- Fan, J.** (2025). Enhancing HCI Capstone Courses Through Diary Study Methods: Feedback and Insights from Graduate-Undergraduate Collaboration. Oral presentation: EduCHI 2025, Indiana, United States.
- Fan, J.** (2025). Diary Study as an Educational Tool: An Experience Report from an HCI Course. Oral presentation: SIGCSE TS 2025, Pennsylvania, United States.
- Fan, J.** (2024). Investigating an Automatic Assistant in Computer Ethics Education. Oral presentation: FIE 2024, Washington, D.C., United States.
- Fan, J.** (2024). Understanding Development of Social Games Through Diary Studies. Oral presentation: FIE 2024, Washington, D.C., United States.
- Fan, J.** (2024). Education in HCI Outdoors: A Diary Study Approach. Oral presentation: EduCHI 2024, New York, United States.

## Mentoring

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2025.01-05	Zhao, J., Oh, S., Bolmer, M., Lee, Y., Flammer, N., & Chen, Y., Diary Study Reflection - Jigsaw Learning Strategy   HCI Capstone Course   <b>CSCW 2025 Poster</b>	Virginia Tech
2024.08-12	Oh, S., Zhao, J., Russo, C., Bolmer, M., & Jeong, J., Fine-Tuning Large-Language Models for Enhanced Feedback in Diary Study Platform   Virginia Tech Undergraduate Research in Computer Science (VTURCS) program   <b>CHI 2025 ACM Student Research Competition   FIE 2025 Full Paper</b>	Virginia Tech
2024.08-12	Barreiro, C., Chandran, J., Seifu, E., Chavan, P., Gaudian, W., Gresge, G., Rosselli, T., Hess, N., & Ryu, A., Technology on the Trail   Virginia Tech Undergraduate Research in Computer Science (VTURCS) program   National Science Foundation: NSF Project	Virginia Tech
2024.07-08	Barreiro, C., Chandran, J., Jordan, P., Seifu, E., Devgan, I., & Elkins, E., Technology on the Trail   Virginia Tech Undergraduate Research in Computer Science (VTURCS) program   National Science Foundation: NSF Project	Virginia Tech
2024.02-05	Horrall, J., Chavan, P., Owusu, Y., Jordan, P., Zhao, J., Gaudian, W., & Rana, A., Building Tools to Support Diary Studies   Virginia Tech Undergraduate Research in Computer Science (VTURCS) program   <b>SIGCSE TS 2025 ACM Student Research Competition   CAPWIC 2024 Poster   VTURCS People's Choice 1st Winner</b>	Virginia Tech

## Professional Development

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### CONFERENCE REVIEWER

2026	SIGCSE TS 2026, CSCW 2026
2025	SIGCSE TS 2025, CSCW 2025, GROUP 2025, EduCHI 2025, FIE 2025, IEEE EduCON 2025
2024	SIGCSE TS 2024, FIE 2024

### SESSION CHAIR

2025	SIGCSE TS 2025, Assessment #2
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### NOMINATION

2025	Nomination for Year 2024 Outstanding Undergraduate Research Mentor, Office of Undergraduate Research	Virginia Tech
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### MEMBERSHIP

2023	Virginia Tech Academy for Graduate Teaching Assistant Excellence - VT GrATE Member, Graduate School	Virginia Tech
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