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

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

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).

[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

[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 PECI 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).

[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.

[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

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

2025.01-05	**Zhao, J., Oh, S., Bolmer, M., Lee, Y., Flammer, N., & Chen, Y.,** Diary Study Reflection - Jigsaw Learning Strategy | HCI Capstone Course | **CSCW 2025 Poster**	*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 | **CHI 2025 ACM Student Research Competition** | **FIE 2025 Full Paper**	*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 | **SIGCSE TS 2025 ACM Student Research Competition** | **CAPWIC 2024 Poster** | **VTURCS People's Choice 1st Winner**	*Virginia Tech*

Professional Development

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

NOMINATION

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

MEMBERSHIP

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