

Gokhan Gulfidan

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EDUCATION

University of Utah,

Salt Lake City, UT

Doctor of Philosophy, Educational Psychology

- Emphasis: Learning Sciences
- Research Assistantship with tuition waiver and stipend (2024 – Present)
- Overall 3.95 GPA

Research Focus

- AI-driven Learning Analytics, Machine Learning Models for Classification
- Data Analysis and Visualization

Middle East Technical University,

Ankara, Turkey

Master of Science, Computer Education and Instructional Technology

- Thesis: Exploring the Relations Between Practice and Test Scores: A Learning Analytics Study Using Process Mining and Correlation Analysis with an Online Practice Supplement
- Awards: Dean's High Honor List (4 semesters)

Middle East Technical University,

Ankara, Turkey

Bachelor of Science, Computer Education and Instructional Technology

- Capstone: Augmented-Reality 'Virtual Museum' Mobile App
- Awards: Dean's High Honor List (5 semesters)

RELEVANT PROFESSIONAL EXPERIENCE

Educational Psychology Department, University of Utah

Salt Lake City, UT

Graduate Research Assistant

- **Led and mentored a team** of 3 undergraduate and graduate interns **on two generative-AI projects**, designing a student-facing **web interface** that turns student inputs into children's storybooks with generated images and **prototyping LLM-based workflows** to measurably **improve performance** on **collaborative** multi-lab research tasks.
- **Implemented LLM-driven data-augmentation** routines to generate balanced samples for under-represented tutoring strategies, **which increased the model's macro-F1 score and AUC by 20 points and cleared the target for journal and conference submission.**
- Developed a real-time React dashboard that streams Qualtrics survey data and auto-generates student-wellbeing reports for researchers, school leaders, and parents, **reducing feedback turnaround from two weeks to same day and boosting stakeholder engagement by 45 %.**

Ministry of Family and Social Services

Ankara, Turkey

Software Developer

- **Reverse-engineered a legacy C#/ASP.NET MVC codebase left without documentation**; produced architecture diagrams and inline comments that cut new-developer **ramp-up time** by **~70 %** and kept the project on schedule.
- **Designed and launched a dynamic survey module (C#, ASP.NET, JavaScript, SQL Server)** to capture citizen-service feedback, raising response rates **an estimated 35 %** and giving managers **real-time dashboards for action planning.**

- Implemented a multi-level event-approval workflow—from staff submitter to unit chief to director—using role-based logic and stored procedures, **shortening approval cycles from 5 days to 3 days and boosting audit compliance to 90 %**.

Bilten Informatics

Ankara, Turkey

Technical Documentation Specialist Intern

- **Re-authored and formatted** a 300-page air-defense system manual in Adobe FrameMaker to meet guidelines, **increasing layout consistency and engineering sign-off speed by 35 %**.
- **Built a single-source FrameMaker workflow** with conditional text for Turkish and English outputs, **boosting field-technician comprehension and cutting support tickets by 40 %**.

LEADERSHIP / VOLUNTEER EXPERIENCE

Bilgels.net, Middle East Technical University

Support Assistant

- **Monitored a live chat + osTicket help-desk queue** for an EU-funded e-learning portal, triaged and resolved 50-plus technical inquiries per week, **shrinking first-response time from 24 h to 4 h and lifting user-satisfaction scores to 92 %**.
- **Produced green-screen tutorial walk-throughs in Adobe Premiere Pro** that guide new users through sign-up, homework submission, and certificate-completion steps; videos drew 5 000+ views in the first month and **trimmed “getting-started” support tickets by 25 %**.

SKILLS

- Languages & Frameworks: Python, React, C#, ASP .NET MVC, JavaScript, jQuery, Ajax
- Databases & Tools: Microsoft SQL Server, Git, TFS
- AI & ML: LLM Fine-Tuning, TensorFlow, PyTorch, Hugging Face
- Workflow: Agile, Scrum
- Languages: English, Turkish (proficient)
- Personal: Adaptable, Trustworthy, Problem-Solver, Quick Learner, Teamwork, Sense of Responsibility

PUBLICATIONS

- Li, C., **Gülfidan, G.**, & Zhang-Kopf, Y. (2026). Balancing AI responsibility with privacy, safety, and utility: Unlearning in large language models for mathematics education. *Computers and Education: Artificial Intelligence*, 11, 100642. <https://doi.org/10.1016/j.caeai.2026.100642>
- Zhang-Kopf, Y., Li, C., **Gülfidan, G.**, Li, H., Castaneda-Rios, M., Guo, R., Song, Y., & Xing, W. (2027). When to stop? An experimental study on AI teachable agent stopping mechanisms and their learning affordance in mathematics. In E. G. Blanchard, G. Chen, M. Chi, & S. Isotani (Eds.), *Artificial intelligence in education: AIED 2026* (Vol. 16582, pp. 247–261). Springer. https://doi.org/10.1007/978-3-032-29755-6_17
- Zhang-Kopf, Y., Li, C., **Gülfidan, G.**, Li, H., & Guo, R. (2026, January 26). *Does AI-powered teachable agent benefit students evenly? A look at the relationship between individual characteristics and state mathematical exam results* [Paper presentation]. AAAI 2026 Workshop on AI for Education: On Opportunities and Challenges of Large Multimodal Models in Education, Singapore.
- Zhang-Kopf, Y., Li, C., **Gülfidan, G.**, Li, H., Song, Y., Guo, R., & Xing, W. (2026, January 26). *When to stop? An experimental study on AI teachable agent stopping mechanisms and their learning affordances in mathematics* [Paper presentation]. AAAI 2026 Workshop on AI for Education: On Opportunities and Challenges of Large Multimodal Models in Education, Singapore.
- Li, C., Lyu, B., **Gülfidan, G.**, Wu, L., & Guo, R. (2026, April 8–12). *LLM-generated knowledge graphs for analyzing the association between student participation and learning in online math discussions* [Poster presentation]. American Educational Research Association Annual Meeting, Los Angeles, CA, United States.

- **Gülfidan, G.**, Li, C., Lyu, B., & Wu, L. (2026, April 8–12). *Exploring tutoring strategies and dropout patterns in online math learning via big data and LLMs* [Paper presentation]. American Educational Research Association Annual Meeting, Los Angeles, CA, United States.
- Lyu, B., Li, C., Li, H., **Gülfidan, G.**, Wu, L., & Guo, R. (2026, April 8–12). *From emotion to learning: How teachable agents' personality shapes math learning* [Paper presentation]. American Educational Research Association Annual Meeting, Los Angeles, CA, United States.
- **Gülfidan, G.**, Li, C., Lyu, B., & Wu, L. (2025, October 20). *Exploring tutoring strategies and student dropout: AI-integrated survival analysis with LLMs using educational big data* [Conference poster]. AECT International Convention 2025, Las Vegas, NV, United States.
- Lyu, B., Li, C., Li, H., Xing, W., **Gülfidan, G.**, & Wu, L. (2025). Text-based teachable agents in math learning: Examining the effects of tone and emojis on student–agent interaction and knowledge application. In A. I. Cristea, E. Walker, Y. Lu, O. C. Santos, & S. Isotani (Eds.), *Artificial intelligence in education (AIED 2025)* (Lecture Notes in Computer Science, Vol. 15880). Springer. https://doi.org/10.1007/978-3-031-98459-4_10
- Li, C., Lyu, B., Yan, Z., Wu, L., & **Gülfidan, G.** (2025, October 20). *Associating social roles with knowledge structure construction in online math discussions based on LLM-generated knowledge graphs* [Conference poster]. AECT International Convention 2025, Las Vegas, NV, United States.
- Wu, L., Li, C., Lyu, B., & **Gülfidan, G.** (2025, October 21). *Enhancing fairness in AI-based text classification for mathematics education* [Conference presentation]. AECT International Convention 2025, Las Vegas, NV, United States.
- Lyu, B., Li, C., Li, H., Xing, W., **Gülfidan, G.**, & Wu, L. (2025, October 22). *Teachable agents as learning partners: How tone and emojis shape student interaction and knowledge application* [Conference presentation]. AECT International Convention 2025, Las Vegas, NV, United States.
- **Gülfidan, G.** (2023). *Exploring the relations between practice and test scores: A learning analytics study using process mining and correlation analysis with an online practice supplement* (Master's thesis, Middle East Technical University, Turkey).