

Mehmet Arif Demirtaş

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EDUCATION

- Ph.D., Computer Science**, *University of Illinois, Urbana-Champaign*, Illinois, US Sep '23 –
○ **Research Interests:** Computing Education Research, Human Computer Interaction
- BSc., Computer Engineering**, *Istanbul Technical University*, Istanbul, Turkey Sep '18 – Jan '23
○ **GPA: 3.94/4.00**

EXPERIENCE

- Graduate Research Assistant**, *University of Illinois, Urbana-Champaign* August '23 –
○ Working with **Dr. Katie Cunningham** to analyze what units of knowledge novices acquire in introductory programming courses.
- Research Engineer**, *Vitamu* April '22 – June '23
○ Developed deep learning models for breast cancer detection and localization from mammograms using **PyTorch** and deployed them to **AWS** and **Google Cloud**.
- R&D Engineer**, *Yapi Kredi Teknoloji* August '21 – April '22
○ Worked in the NLP team of the R&D department of the IT subsidiary of Turkey's third largest bank, contributed to document processing pipeline with an approach for parsing relations between pages in multi-page trade documents based on multimodal embeddings, presented at **ICPR 2022**.
- Research Intern**, *University of Illinois, Urbana-Champaign* June '21 – March '22
○ Developed a test generation framework for autonomous driving systems in **Python** with **Dr. Reyhaneh Jabbarvand**.
- Research Intern**, *Istanbul Technical University* Dec '20 – May '21
○ Designed a novel method based on geometric deep learning on brain graphs for behavioral score prediction in **BASIRA Lab** with **Dr. Islem Rekik**, co-authored the paper explaining the method, published in Brain Imaging and Behavior.

SELECTED PUBLICATIONS

- M. A. Demirtaş, M. Fowler, and K. Cunningham. Reexamining learning curve analysis in programming education: The value of many small problems. In B. PaaŸen and C. D. Epp, editors, *Proceedings of the 17th International Conference on Educational Data Mining*, pages 53–67, Atlanta, Georgia, USA, July 2024a. International Educational Data Mining Society. doi: 10.5281/zenodo.12729774.
- M. A. Demirtaş, M. Fowler, N. Hu, and K. Cunningham. Validating, refining, and identifying programming plans using learning curve analysis on code writing data. In *Proceedings of the 2024 ACM Conference on International Computing Education Research - Volume 1*, ICER '24, page 263–279, New York, NY, USA, 2024b. Association for Computing Machinery. doi: 10.1145/3632620.3671120.
- M. A. Demirtaş, B. Oral, M. Y. Akpınar, and O. Deniz. Semantic parsing of interpage relations. In *26th International Conference on Pattern Recognition*, 2022. URL <https://arxiv.org/abs/2205.13530>.
- M. Hanik, M. A. Demirtaş, M. A. Gharsallaoui, and I. Rekik. Predicting cognitive scores with graph neural networks through sample selection learning. *Brain Imaging and Behavior*, 16(3):1123–1138, 2022. URL <https://doi.org/10.1007/s11682-021-00585-7>.

OTHER EXPERIENCES

- Participant in EDM2024 doctoral consortium (July 14-17, 2024).