Deniz Nazar (Nazarova)

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Research Interests

AI Safety, Security & Reliability, LLM Red Teaming, Abstention, Human-Centered NLP, Proactive Learning

Education

University of Washington   Sept 2024–present
PhD in Computer Science   GPA: 3.84/4.0.
Advisors: Yulia Tsvetkov, Tim Althoff

American University of Central Asia   2018–2023
Bachelor's Degrees in Software Engineering and Psychology, *summa cum laude*   GPA: 3.91/4.0.
Advisors: Almaz Bakenov, Elena Kosterina (AUCA); Dimitri Kanevsky, Artem Dementyev, (Google Research)
Theses: Application of Artificial Intelligence in Mental Healthcare: GPT-3 and Cognitive Distortions.

Work Experience

Data Engineer | *UN Women, Europe and Central Asia*   May–Oct 2024
Designed and deployed a web scraping and data processing pipeline for femicide cases from news sources.

Data Engineer | *EPAM Systems*   Jan–Jul 2024
Engineered high-throughput data pipelines using Kafka producers/consumers and Spark (SQL, DataFrames),
with scalable storage and querying via Azure Blob Storage and Azure SQL Database.

Machine Learning Engineer | *EIWA AI Doula*   Sep 2023–Sep 2024
Post-trained an LLM agent for pregnancy guidance and integrated knowledge graphs to support decision-making
in postpartum mental health (**top-5 at the Glovo KG Startup Competition (out of 250+)**.

Machine Learning Engineer | *USAID WSpark*   May 2023–Dec 2023
Developed Kyrgyz-language NLP systems, contributed to public datasets, and optimized production backends.

Summer ML Intern | *Neuromatch*   2021, 2024
(2024) Evalluated Hebbian and SoftHebbian learning as biologically plausible alternatives to backpropagation.
(2021) fMRI neural classifier distinguishing language vs. math tasks (93%; **Best Internship Award, AUCA**).

Publications

Nazarova, D., [...], Althoff, T., Tsvetkov, Y. (2026). It's What's Not in The Prompt: LLM Risk Assessment
Framework in Mental Health Conversations under Uncertainty. *In preparation.*

Nazarova, D. (2023). Application of Artificial Intelligence in Mental Healthcare: Generative Pre-trained
Transformer 3 (GPT-3) and Cognitive Distortions. In: Arai, K. (eds) *Proceedings of the Future Technologies
Conference (FTC) 2023, Volume 1* (FTC 2023, Lecture Notes in Networks and Systems, vol. 813). Springer,
Cham. `https://doi.org/10.1007/978-3-031-47454-5_16`

Selected Honors & Awards

(2024) First-Year Ph.D. Fellowship, Paul G. Allen School of Computer Science and Engineering
(2023) Best Thesis Award, American University of Central Asia
(2018) Golden Certificate Scholarship, President of the Kyrgyz Republic, ranked 3rd nationwide.

Skills

Programming languages: Python, SQL, Git, Latex (proficient); C++, Java, JavaScript, R, Bash (experienced)
Natural languages: English (C2), Russian (native), Kyrgyz (B2), Turkish (A2), French (A2)