Andrii Nikolaiev, PhD

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Summary

Project Manager with 9+ years in EdTech, leading educational programs and startup initiatives. AI Researcher with a PhD and 5+ years in AI/ML, specialising in LLM benchmarking, evaluation, and experimentation design.

Education

Visiting Research Student
University of Cambridge (2023–2025)

Ph.D. in Computer Science
Taras Shevchenko National University of Kyiv (2020–2025)

B.Sc. & M.Sc. in Computer Science
Taras Shevchenko National University of Kyiv (2014–2020)

Grants & Awards

- Emergent Ventures Fellow, Mercatus Center (2023–2026)
- Fully funded research placement fellowship, University of Cambridge (2023–2025)

Skills

- **Programming:** Python, R, C/C++, SQL, LaTeX
- **ML & AI:** PyTorch, Hugging Face, vLLM, llama.cpp, NumPy, Pandas, Scikit-learn
- **Cloud & MLOps:** GCP, Kubernetes, HPC, Git, UNIX, Docker
- **Project Management:** Program design, budgeting, team leadership, startup initiatives
- **Languages:** English (fluent), Ukrainian (native)
- **Interests:** Half-marathon (PB: 1:32:42), football, chess, yoga

Research Experience

Researcher in NLP, University of Cambridge *Apr 2023 – Present*

- Developed symbolic benchmark generation pipelines for combinatorial reasoning tasks, revealing up to 30% performance gaps in LLMs.
- Deployed and evaluated LLMs across HPC clusters and cloud-based inference environments.
- Designed and led human evaluation studies with 40 participants to assess LLM reasoning performance.

Researcher - LLM Benchmarking, Osiris-AI *Aug – Sep 2025*

- Implemented OCR and document segmentation pipelines on historical handwritten records.
- Improved pipeline accuracy via multimodal LLM-based workflows.

Ph.D. Researcher in CS, Taras Shevchenko National Univ *2020 – 2025*

- Benchmarked 15+ LLMs on reasoning tasks over 860K+ Chain-of-Thought examples.
- Optimised evaluation pipelines with LLM-as-a-Judge approach and synthetic data generation.

Selected Publications

- Neural Network Methods for Selecting and Generating Synthetic Variations of Combinatorial Problems, Cybernetics and System Analysis, Springer Nature, 2025.
- Can Language Models Rival Mathematics Students? Evaluating Mathematical Reasoning through Textual Manipulation and Human Experiments, ACL RR, arXiv preprint, 2024.

Project Management Experience

Expert Project Manager, Mercor (APEX) *Feb 2026 – Present*

- Designed and ran experiments evaluating AI models on economically meaningful professional tasks across domains.
- Analysed AI agent behaviour via MCP tool usage and computer user actions (CUA).
- Developed evaluation metrics and collaborated with domain experts across industries.

Co-founder & CEO, Kvanta.STEM *2016 – Present*

- Led a national STEM programme with 1,000+ learners and 40+ instructors across weekly Olympiad-level programmes in mathematics, programming, and science.
- Designed curriculum and plan execution for boot camps with up to 200 participants (online & in-person formats).
- Secured $150,000+ in funding and managed institutional partnerships.

Partnerships Project Manager, Roosh Invest. Group *Sep 2021 – Mar 2022*

- Managed partnerships with academic institutions, educational organisations, and stakeholders; coordinated online events for 200+ participants.

Program Manager, NGO Kontora Pi *Jan – Aug 2019*

- Managed national educational programs and executed $70,000 budgets.