Roman Dolgopolyi

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Research Profile

PhD student in Computer Science at Northeastern University, advised by Professor Upol Ehsan. My research focuses on Human-Centered AI, ensuring that people and AI systems interact both responsibly and effectively.

Education

Northeastern University Sep 2026 – Present
PhD in Computer Science · Advisor: Prof. Upol Ehsan

Open University, UK & The American College of Greece (ACG) Sep 2022 – May 2026
BSc (Hons) with First-Class Honours in Cybersecurity & Networking

Thesis title: *COMPASS: Benchmarking Safety-Aware Vision-Language Navigation.*

Publications

- **R. Dolgopolyi**, M. S. Khan, J. Ahmad, K. Vavousis, and N. Pitropakis, "COMPASS: Benchmarking Safety-Aware Vision-Language Navigation in Intelligent Transport Environments," *IET Intelligent Transport Systems*, vol. 20, no. 1, e70347, 2026.
- **R. Dolgopolyi** and A. Chatzipanagiotou, "EEG Emotion Recognition Through Deep Learning," in *European, Mediterranean, and Middle Eastern Conference on Information Systems*, Springer, pp. 255–273, 2025.

Research Experience

Research Assistant Sep 2026 – Present
HCXAI Lab, Northeastern University · Advisor: Prof. Upol Ehsan
- Research on applying Human-Centered Explainable AI to mechanistic interpretability and agentic AI

Research and Development Scientist May 2026 – Aug 2026
Hellenic Ministry of Digital Governance · Pharos AI Factory & GRNET
- Managed training and fine-tuning of foundation AI models on the MeluXina and ARIS supercomputers.
- Prepared and tested infrastructure readiness for the launch of the DAEDALUS supercomputer.

Research Assistant May 2025 – May 2026
Laboratory of Artificial Intelligence (AI Lab), ACG · Advisors: Prof. I.T. Christou, Prof. N. Bakas
- Research on the explainability of CNNs for early diagnosis of acute lymphoblastic leukemia
- Research on the development of a safety-assessment benchmark for VLA models

Research Assistant May 2024 – Aug 2024
Laboratory of Smart Wireless Future Technologies (SWIFT Lab), ACG · Advisors: Prof. C.B. Papadias
- Research on phase shift keying (PSK) classification with deep neural networks (DNNs)
- Research on AI-enabled integrated sensing and communication (ISAC) systems for object recognition tasks

Teaching Experience

Seminar Series Lecturer May 2026 – Aug 2026
Hellenic Ministry of Digital Governance · Pharos AI Factory & GRNET
- Delivered a seminar series on agentic AI, high-performance computing, foundation models, and AI training and fine-tuning for internal and external audiences of up to 80 participants.

Lecturer Jan 2025 – May 2025
Behavioral Neuroscience Club, ACG
- Conducted lectures on interconnections of AI & neuroscience

Volunteer Tutor Sep 2022 – Present
Independent
- Taught computer science to high-school students

Honors

OpenAI & Hugging Face Hackathon Winner (2026): Build Small hackathon on efficient LLM integration.
Millennium Fellowship Nominee (2025): United Nations leadership program.
Western Union Global Scholar Nominee (2025): university-selected competitive scholarship.
Dean's List (2023 – 2025): given for outstanding academic performance.