

“Our vision is to create the leading research institute focused on the fusion of human and machine intelligence into working AI solutions that naturally and effectively augment the best of machine algorithms with the intelligence that humans uniquely bring to bear.”

Usama Fayyad, Executive Director

What do we mean by Experiential AI?

AI with humans in the loop,
applied to real-world problems
yielding pragmatic working
solutions

Institute for *Experiential AI*

- Provides a unified umbrella for AI research & applications across Northeastern University
- Works with industry, public institutions, and academia on R&D problems that
 - Deliver **economic value** through applied intelligence that addresses hard AI problems
 - Support education at graduate, undergrad, and professional levels through **experience with solving real-world problems and challenges on actual live projects**
 - Collaboration across **multi-disciplinary research on high impact business & societal problems**

Our Practicum Approach to Problem Solving & Education

Our residency-based “teaching hospital” approach provides learners with supervised apprenticeship, enabling a “data science factory” to develop solutions for real-world problems in partnership with industry as well as services such as algorithm audits and certifications for Responsible AI

Goals



- **Experiential Focus:** Disseminate and advance the knowledge on the state-of-the-art in making AI work in practice – both to advance the science and to create a better educational preparation with learners who learn from practical apprenticeship
- **International Authority:** Gain mind-share on how AI can be used **responsibly** and **ethically** in industry, government, society, and academia.
- **Economic Impact:** Deliver actual value to partners in industry and public sector by solving high-value applied problems that make a significant social contribution

Priorities

- **Teaching Hospital:** Create a factory for AI/DS solution development over real-world problems and data sets
- **Consulting Service:** Offer a “consulting service” to companies and organizations that is oriented around cohorts as an immersive “residency” type experience
- **Data Repository:** Provide a state-of-the-art data repository for sharing data for research, publishing requirements, reproducibility, etc.
- **Application Areas:** Candidate areas include Cybersecurity, Healthcare Informatics, Information Retrieval 3.0 and Responsible AI