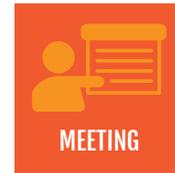# TRANSFORM YOUR ORGANIZATION WITH
ARTIFICIAL INTELLIGENCE

AUGMENT CAPABILITIES • DIGITIZE PROCEDURES • GAIN FRESH INSIGHTS

The Health Data Analytics Inititative at Illinois teaches your company to harness the power of AI to solve simple and complex problems inherent in clinical settings and medical research. Our project approach manages abstract business needs or specific scientific questions, and conveys project purposes and expected benefits to ensure transparency and governance. We offer this opportunity to work with world class AI experts and experienced practitioners, starting with a one-on-one AI Discovery Meeting in which we'll assess your company's current potential to use AI.

MEETING

DATA

APPROACH

AI TOOLS

JOIN US FOR AN AI DISCOVERY MEETING!

This meeting covers:
- Introduction to unique aspects of AI
- Discussing a data inventory
- Analyzing your data on a high level
- Identifying possible AI application areas based on your business needs
- Discussing collaboration with the Health Data Analytics Initiative

COLLABORATE WITH THE UNIVERSITY OF ILLINOIS

The Health Data Analytics Initiative at Illinois boasts a group of leading experts in AI and data science using cutting-edge technology to enable your company to respond with precision to a variety of challenges. Our collaborative mindset encourages partnerships with some of the best data scientists in the world, influencing nearly every aspect of modern medicine. We apply AI to medical research in a variety of ways, producing literally life-changing outcomes.

Our experience in clinical settings ranges from complex data-retrieval solutions to digitizing error-prone procedures, from developing re-admission models to predicting drug responses, and much more. As part of the University of Illinois, it's our mission and responsibility to support both start-ups and established industries by providing resources and services to advance research and economic development both locally and nationwide.

Grainger College of Engineering
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

HEALTH DATA ANALYTICS INITIATIVE | HEALTH CARE ENGINEERING SYSTEMS CENTER
George Heintz, Program Manager | jheintz@illinois.edu | 217-300-1924 | 1206 W. Clark Street, Urbana IL, 61801

PROJECT APPROACH

1 — **Project Development I: AI Discovery Meeting**
- Interviews
- Assess data sources such as servers, databases, storage, IoT devices, papers, & unstructured text

2 — **Project Development II: Target Setting**
- Discovery visualization
- Descriptive statistics, patterns
- Brainstorming
- Output: research question & goal

3 — **Business Alignment**
- Stakeholder buy-in
- Business case

4 — **AI Development**
- Data collection & data wrangling
- Classical descriptive statistics
- Analysis of linear-nonlinear systems
- Pattern recognition
- Natural language processing
- Classical predictive analytics
- Machine learning
- Reinforcement learning
- Deep learning

5 — **Validation**

6 — **Implementation**
- Software development
- Handover

7 — **Operation**
- Service & delivery
- Change management

8 — **Benefit Realization**

DATA

Data types: Clinical, pharmaceutical, laboratory, genomic, social, environmental, health status records, treatment process info, and historical & visiting experience

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AI TOOLS

Data Science: Curation, Mining, Visualization, Text Transformation, and more

Machine Learning: Neural Networks, Random Forest, Decision Trees, Logistic Regression, and more

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CUSTOMIZED AI

Get in touch! Send us an email and we will contact you to discuss meeting details and answer any questions you may have.