AI in Practice:
A Predictive Model

Ensuring Safety with AI

Ari Lightman, *Professor Digital Media and Marketing*

Sean Beggs, *Director, School Of Information Systems*

Carnegie Mellon University
HeinzCollege

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- Professor, Digital Media and Marketing

- Faculty Lead: CDigO Executive Education Program

- Commercialization and Marketing Advisor, CMLH

- Co-PI, Inst. For Patient Safety Research

- Ai Research, Crypto Research

Background: Start-ups, VC, Management Consulting

Ari Lightman

Carnegie Mellon University

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Director

- Master of Information Systems Management

- Master of Information Systems Management – Business
Intelligence & Data Analytics

- Background: Jet Engine Mechanic;
Technology Management & System Administration

Sean Beggs

Heinz College Profile

- Two Distinct Schools
  - School of Public Policy and Management
  - School of Information Systems and Management
- Heinz Curriculum Elements:

  Systems Thinking + Technology + Analytics + Capstone Project

- INFORMS UPS Smith Prize for best data analytics program

- 70 faculty (30+) with expertise in IT Systems Management (AI, ML, Data, Software)
- 100 capstone projects a year with public, private, and non-profit sectors

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Engaging with Heinz College

Recruit Our Students

Whether Filling Key Positions At Your Organization Or Landing A Summer Intern, We Are Here To Meet Your Recruiting Needs

Engage In Research

Become A Partner In Innovation And Tap Into Emerging Research For Distinct Market Advantage

Up-Skill Through Executive Education

Develop Your Team Into Effective Leaders Through Our Transformative Executive Education And Leadership Programs

Sponsor A Capstone Project

Collaborate With Our Students On A Semester-Long Project, Solving A Complex Problem And Working With Potential Hires

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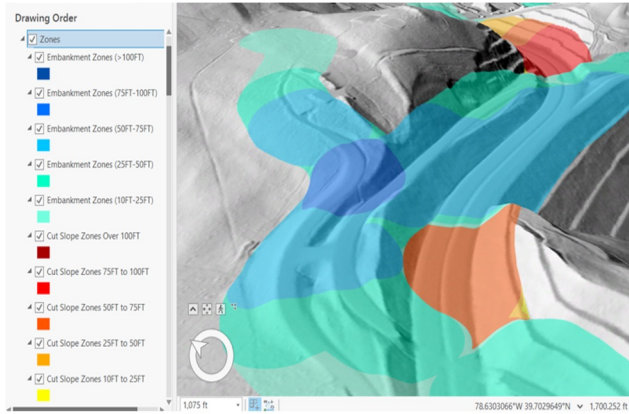
Improve highway and transportation safety by reducing landslide risks

Improve Highway Construction Safety by workzone gesture detection

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**- Institute for Patient Safety Research**

Innovate with our Capstone Program

o Team of 4-6 students led by a faculty expert

o 15 weeks (Fall, Spring, Summer)

o No Fee – We Invite a Philanthropic Gift; $10,000 or more qualify for recognition through our Heinz Corporate Partners Program

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How Does a Capstone Serve Your Team?
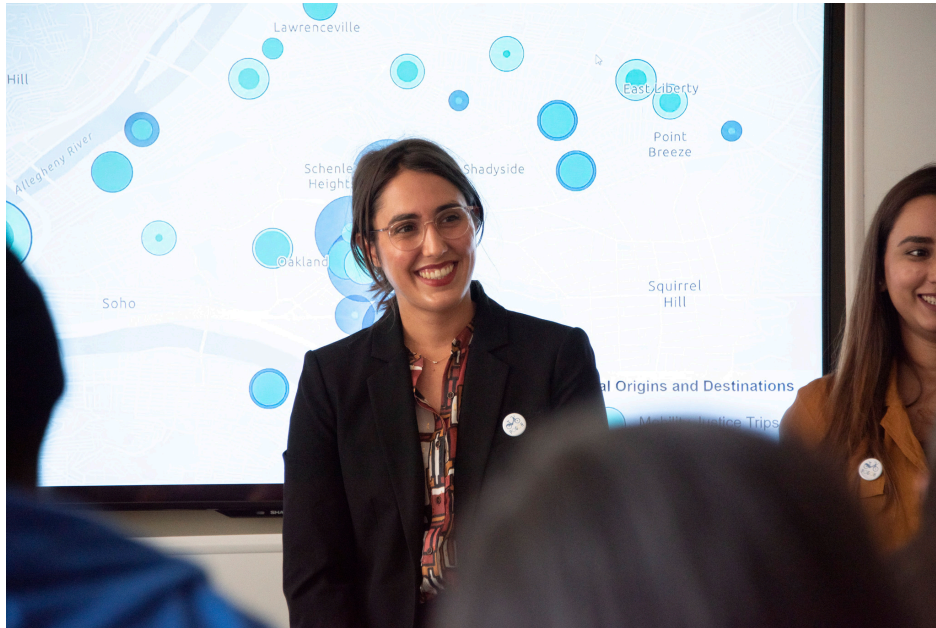
- Students Can Create a **Customized Business, Policy, or Technology Solution**
- Potential to **Receive a License to the Team's Work Product** on Your Platforms
- Create a **Talent Pipeline**
- Collaborate with **Faculty Experts**
- Potential to Elevate to **Capstone+**

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Real Impact

Regional Impact with Iconic Brand

Over the last 5 years, our students contributed to **Bayer** Radiology's vision for a cohesive patient experience that prioritizes early detection and prevention

Intersection of Policy and Technology

Our students helped code a large language model with **Bipartisan Policy Center** so that lawmakers can access and analyze legislation, while training AI models to support projects that ultimately drive policy across government

Government Impact and Global Reach

Our students built a prototype of a data pipeline to support the **National Geospatial-Intelligence Agency (NGA)** combat illegal, unreported, and unregulated (IUU) fishing

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Heinz College Capstone Spotlight

- PA Department of Labor & Industry

  Goal: Reduce injury claims & costs ; improve satisfaction

  Result: Analytic System (data integration, prediction, visualization)

- Spanned multiple semesters

- Graduate students developed & improved system

Take Action

- Summer Semester (May-August)
  Proposals due **April 30**

- Fall Semester (August-December)
  Proposals due **July 1**

- Spring Semester (January-May)
  Proposals due **November 1**

https://www.heinz.cmu.edu/employers-partners/propose-project

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What's New @ Heinz College

Master of Artificial Intelligence Systems Management
(MAISM)

Master of AI Systems Management: The CMU Advantage

Leveraging…

- CMU's reputation as a trailblazer in Artificial Intelligence
- Heinz faculty prominence in AI policy, governance, and responsible AI
- PwC Center for Digital Transformation, the Block Center for Technology and Society, and our existing employer relationships
- Ecosystem of partners in our CIO, CDO, CDigO, and CISO Exec Ed programs
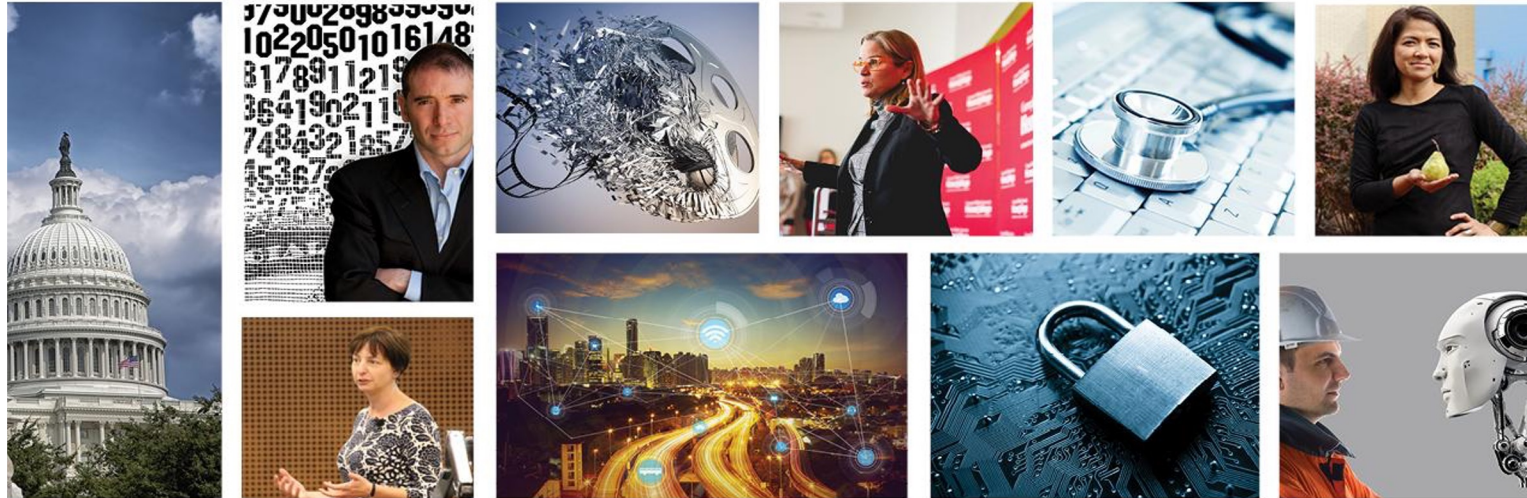- Portfolio of AI courses and professional masters' degrees in IT and Data Analytics

The Goal of MAISM

To develop a new generation of AI deployers, strategists, and evangelists. These individuals can address the organizational, technical, and regulatory challenges of operationalizing AI. The focus is on applying AI to solve consequential organizational problems.

Learning Outcomes:

- Apply systems thinking in making organizational AI decisions
- Analyze AI architectures and data management approaches
- Instrument, measure, evaluate and explain AI outcomes
- Employ responsible AI practices & build AI trust
- Apply industry-specific best practices to AI initiatives
- Communicate effectively with stakeholders on AI solutions
- Understand the societal consequences of technological change
- Evaluate the costs, benefits, and risks of an AI initiative

Heinz College of Information Systems and Public Policy

INTELLIGENT ACTION
WHERE PEOPLE, POLICY
AND TECHNOLOGY MEET

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