



ILLINOIS TECH

Master of Data Science program

**“To fulfill my goal of becoming
a global solution provider”**

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Illinois Institute of Technology



My approach & Understanding

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To be CLEAR... Self Introduction (Personal)

- ✓ **Understand how to collaborate and share things with each other than staying in individual happiness**
Experience the level of creativity allowed in Canada, I had a dream of going abroad, on a bigger stage



- ✓ Have been grateful and satisfied with all the things given to me - a stable family, faith and love, and financial leisure that does not overflow. If I hadn't practiced sharing, such as IT Volunteer work in Ecuador and supporting students in Zimbabwe, I might have lived a very personal life. However, through such a precious experience, I hoped for a shared future rather than staying in individual happiness.
- ✓ When I was in Canada, I saw firsthand the degree of diversity accepted and appreciated in Canada and the level of creativity allowed. I was moved by the possibilities that an open society can bring to its members. Since then, I had a dream of going abroad, on a bigger stage. To this end, I made endless efforts, such as a Master degree program and studying English, and came to Oracle, which would become a stepping stone to my future dream. At Oracle, I had a lot of experience, such as carrying out overseas projects with global experts.
- ✓ Now is the time to take the next step toward my dream. My next destination is Illinois Institute of Tech, and I want to work at a global tech company for 3 years, understand the flow of the US and global markets, and start my own business in 5 years.

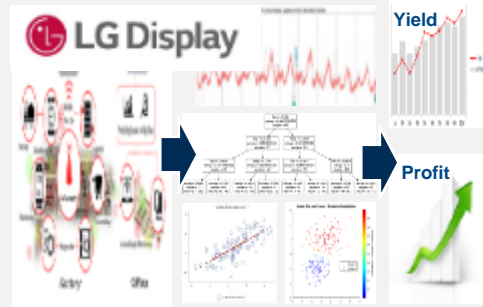
To be CLEAR... Self Introduction (Professional)

- ✓ Ready to share my experiences in the field of data science, and be confident to create synergy in research activities and collaborate with colleagues at Illinois Institute of Technology, College of Computing

My expertise in Data Science field and my enthusiasm for learning

- Data Scientist (LG Display) ('13.01~'19.05)

“ Provide business value by analyzing data and developing models so as to excavate insights for the front-line employees ”



- Implement multiple ML/data analysis projects

→ Develop an anomaly detection and monitoring system with ANN algorithm, enabling early error detection of pixel deposition facilities. (Reduced annual defect rate by 0.2%)

► Python, SAS(JMP), Spotfire, Matlab,

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Excel,
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- KAIST Master of Science in Information Management ('16.09~'19.01)

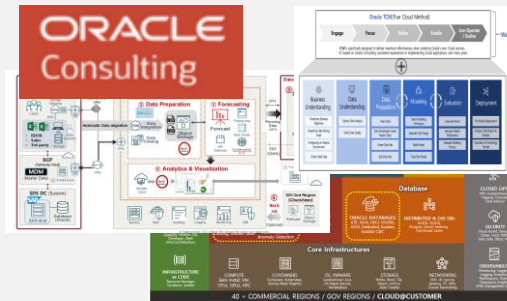
“ An interdisciplinary program that combines data analysis, strategy, and management (Lectures: Business Analytics, Big data Analysis, App development, IT system Design, IT business Management) ”



- Research: Expected Values on the Continuous Intention to Use IoT Products from the Perspective of Expectation-Confirmation Theory (user, survey data)
 - Data analysis & ML Projects with startup companies (Recommendation system, churn & conversion rate, target marketing, and log data analysis)
- Python, SPSS, Smart PLS, MySQL
OracleDB

- AI/ML & Data platform Consultant (Oracle) ('19.05~present)

“ Provide consulting services to design data architecture and develop AI/ML & Data platform to build data-driven enterprise ”



- Implemented multiple AI/ML & data platform projects (Industry: pharmaceutical, distribution, manufacturing, insurance, banking)
 - Engage in proof-of-concept work or product demonstration for clients to deliver data strategy and insight based on clients' requirements.
- Python, Oracle solution (OML, OAC, Data Science, AI Service)

- Enthusiasm for learning (~Continuous)

“ External activities to improve my technical knowledge in Data Science and academic subjects ”

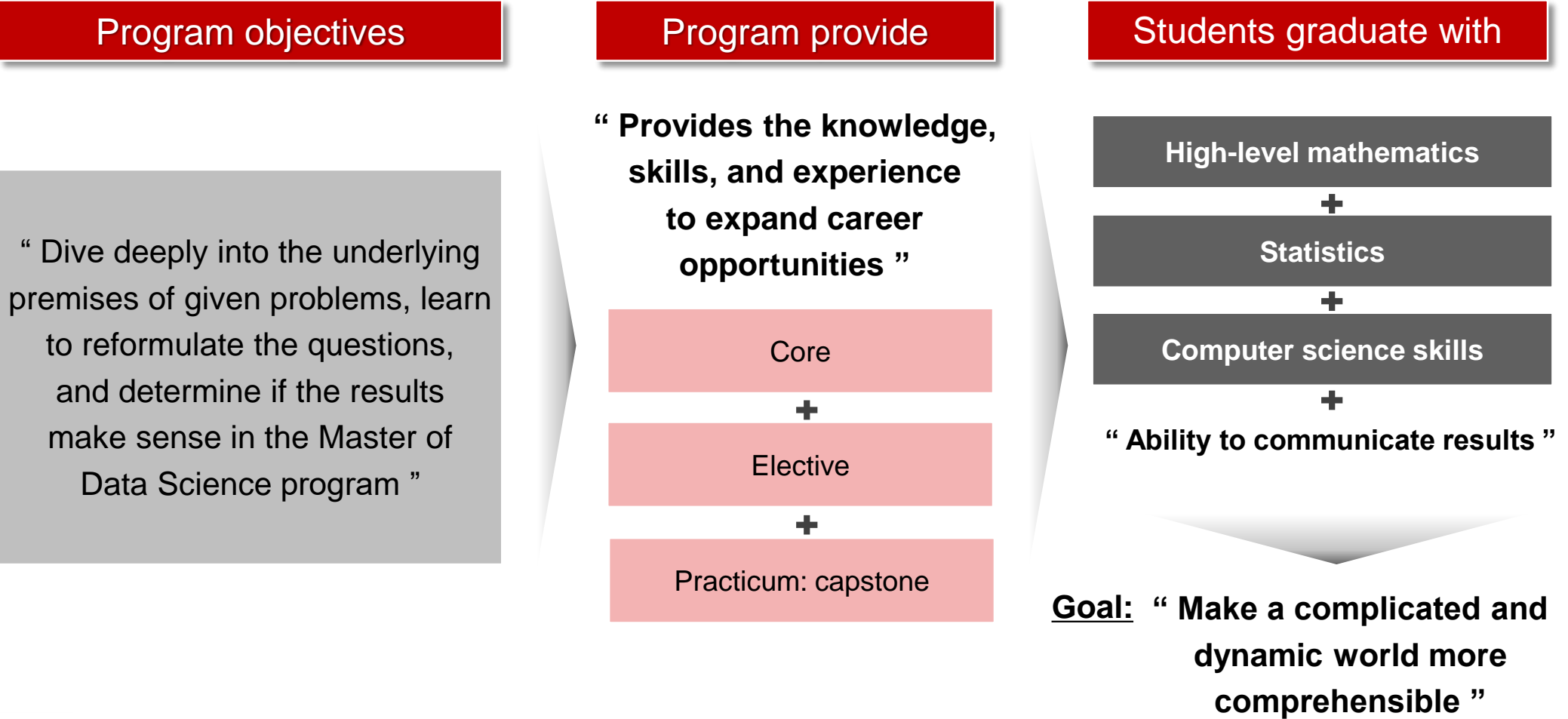


- External efforts:
- Oracle professional training (Analytics, Database, Cloud Infrastructure, Architecture)
- Courses (Linear Algebra, Multivariate Calculus, Statistical Inference, Randomized Algorithms, Data Structure)
- Conference & Volunteer work (KORMS conference, NVIDIA GTC 2018, IT Education volunteer(Ecuador))⁴

To be CLEAR... My understanding of Master of Data Science program at Illinois Tech

- ✓ The Master of Data Science program aims to help students make sense of data using high-level mathematics, statistics, and computer science, and become skilled at communicating insights and results

Illinois Tech’s Master of Data Science Program overview



To be CLEAR... Why Illinois Tech's Master of Data Science program ? (My Progress)

- ✓ Having a master's degree from Illinois Tech which is the best Data Science program across the globe is a prerequisite for my future objective to start my own business



- ✓ In 2019, I decided to pursue my journey at Oracle in order to aid in preliminary work for companies in a variety of industries seeking to start data transformation. Oracle allows me to develop into a better-equipped analyst and entrepreneur. I'm able to understand different market demands by facing unmet needs by serving consulting services to multiple clients in a diversity of industries. I plan to develop my own solution for the existing numerous Small and Midsize Businesses (SMB) each with its unique set of needs. With the lessons from my career and degree program, I aspire to develop AI and ML-based solution packages that will help SMBs in their operations across the world.
- ✓ Having a master's degree from the Illinois Institute of Tech which is the best Data Science program across the globe is a prerequisite for my future objective to start my own business. I will make my partners and, expand my technical and theoretical knowledge. Also, I will have time to quench my thirst by reading and understanding various research papers and finding things that can be applied. Moreover, I will conduct a capstone project within my interest to deepen my knowledge. I'm certain that I will be able to accomplish my goals and create meaningful results by partaking in the Master of Data Science program at Illinois Tech.

To be CLEAR... My course schedule at Illinois Tech

- ✓ **Quench my thirst through core and elective coursework (In particular★) to fulfill my future objective**
Plan to take 4 semesters (36 credits): Core (18), Electives (12), and Capstone project (6)

	Year 1		Year 2		Curriculum	
Calendar	Semester 1	Semester 2	Semester 3	Semester 4	Practicum	Capstone project: Dr. Mustafa Bilgic
Credit	9 credits	9 credits	9 credits	9 Credit		+
1	Math 564: Applied Statistics	CSP 554: Big Data Technology	CSP 572: ★ Data Science Practicum	SCI 511: Project Management	Elective courses	Elective courses 4 courses (*If CS430:prerequisite is necessary, I would take it instead of CS581)
2	CS 584: ★ Machine Learning	CSP 571: Data Preparation and Analysis	CS 525: Advanced Database Organization	CS 579: ★ Online Social Network Analysis		+
3	CS 585: ★ Natural Language Processing	CS 577: ★ Deep Learning		CS 581: ★ Advanced Artificial Intelligence	Core courses	Core courses 6 courses
4					Total	36 credits

★ Important courses for me to enhance my knowledge are needed

※ Graduate Requirement: 33credits

To be CLEAR... My area of interest

- ✓ Would like to work on developing methods to promote the use of machine learning, especially with regard to the recommendation system, user data analysis & personalization, and social media analysis

My interest in Data Science

- ✓ **Recommendation model**
- ✓ Time-series analysis
- ✓ Sales & demand forecasting
- ✓ Customer segmentation
- ✓ **User Personalization**
- ✓ Customer satisfaction prediction
- ✓ **Social media analysis**

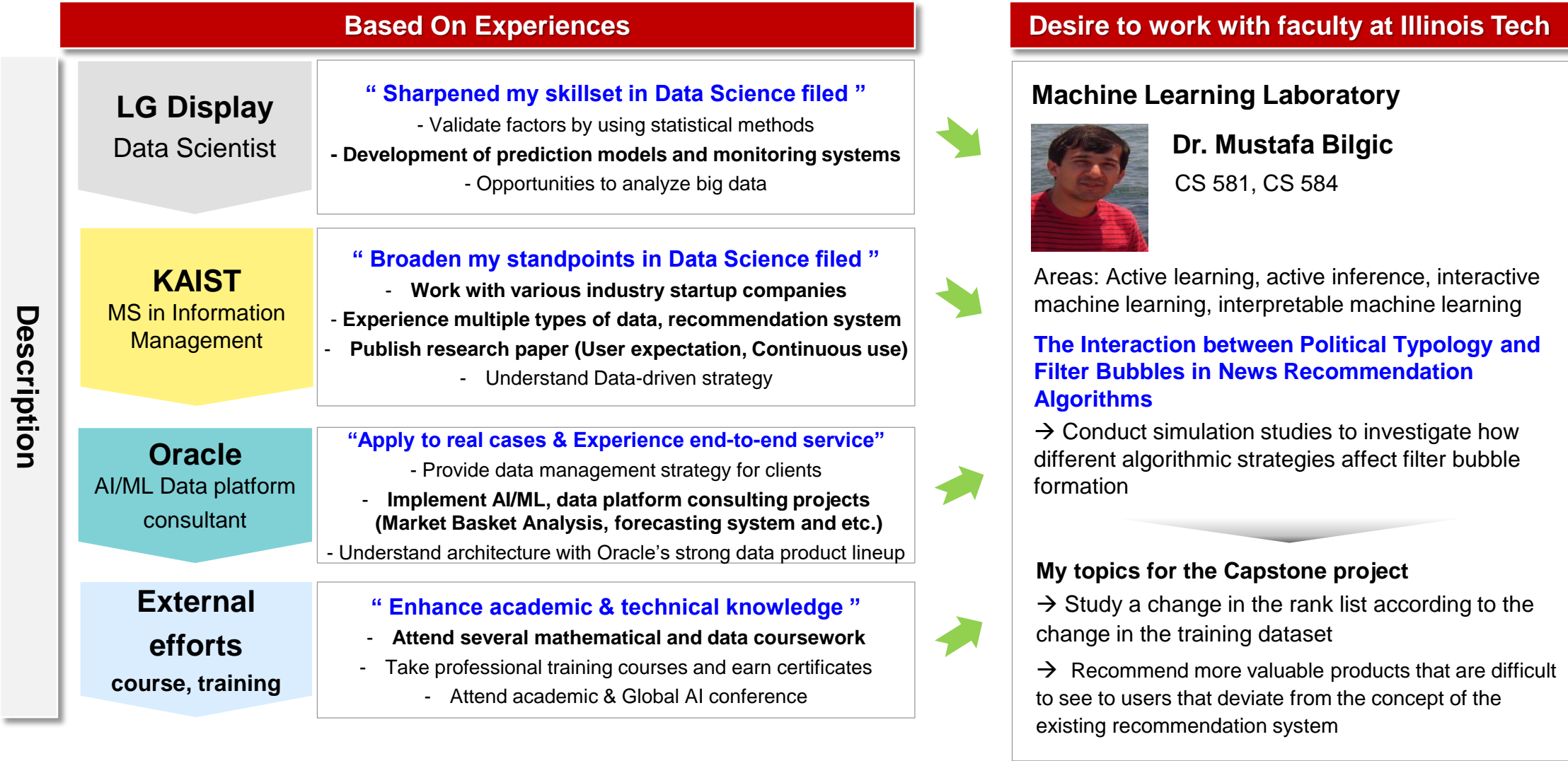


Deepen my knowledge at Illinois Tech

- ✓ Explainable recommendation
- ✓ Graph-based recommendation
- ✓ Sentiment-based recommendation
- ✓ Media (cartoon, music, book) recommendation
- ✓ Social media analysis
- ✓ Personalized marketing strategy
- ✓ Forecasting for new launching products (Without historical data)
- ✓ Development of driver factors (Find out factors affecting the model's performance)
- ✓ Continuous decision-making under uncertainty

To be CLEAR... Why Illinois Tech’s Master of Data Science program ? (My direction of study)

- ✓ I would like to earn advice from Dr. Mustafa Bilgic on defining key factors that affect recommendation performance, such as training data fluctuations and queries, but are overlooked



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