



SAN FRANCISCO
STATE UNIVERSITY

MS in Statistical Data Science

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

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Prepared for
San Francisco State University



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 SFSU, 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.

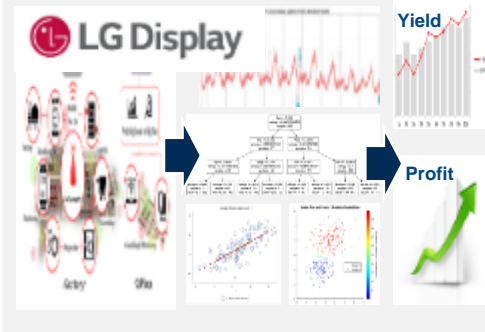
To be CLEAR... Self Introduction (Professional)

- ✓ Ready to share my experiences in the field of data science, and be confident to create synergy in academic activities and collaborate with colleagues at the San Francisco State University

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 model 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, Excel,



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

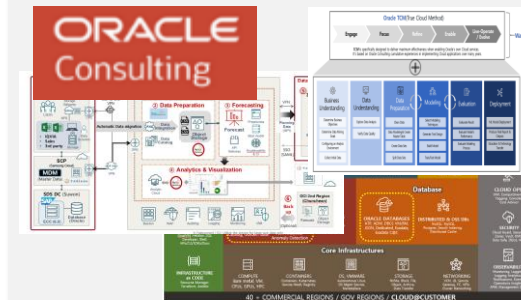
“ An interdisciplinary program that combines data analysis, strategy, and management (Lectures: Business Analytics, Big data Analysis, App development, IT system Design, IT business Management) ”



- 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)

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

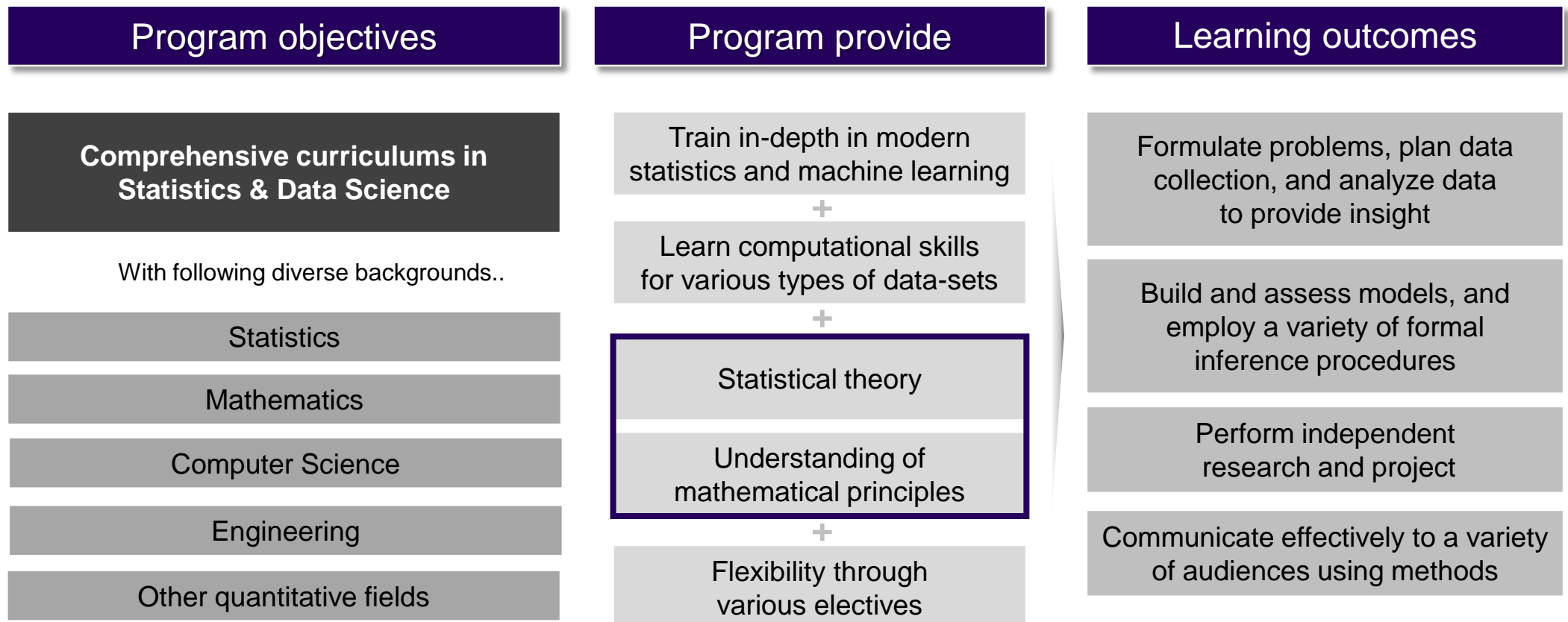


- External efforts:
- Oracle professional training (Analytics, Database, Cloud Infrastructure, Architecture)
- Courses (Linear Algebra, Multivariate Calculus, Statistical Inference, Randomized Algorithms, Data Structure)
- Conference & Volunteer work (KORMS conference, NVIDIA GTC 2018, IT Education volunteer(Ecuador))

To be CLEAR... My understanding of MS in Statistical Data Science program at SFSU

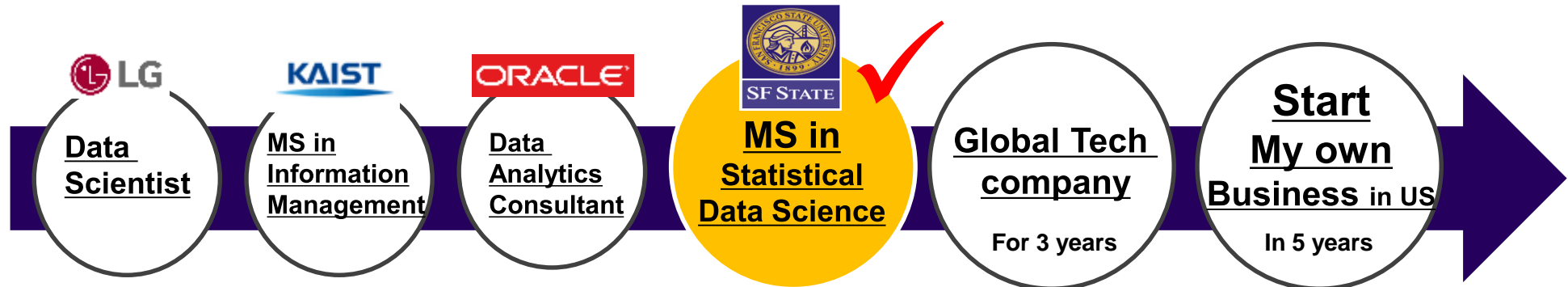
- ✓ SFSU's MS in Statistical Data Science program offers a comprehensive curriculum with diverse backgrounds and train statistics, machine learning, and computational skills through various electives

SFSU's MS in Statistical Data Science Program overview



To be CLEAR... Why SFSU MS in Statistical Data Science program ? (My Progress)

- ✓ Having a master's degree from SFSU 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 an AI/ML-based solution package that will help SMBs in their operations across the world.
- ✓ Having a master's degree from SFSU 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 publish a research paper 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 MS in Statistical Data Science program at SFSU.

To be CLEAR... My course schedule at SFSU

- ✓ **Quench my thirst through program and elective courses (In particular★) to fulfill my future objective**
Plan to take 4 semesters (30 credits): Program (12), Electives (CS:15), and Thesis (3)

	Year 1			Year 2		Curriculum	
Calendar	Fall (Sep- Dec)	Spring (Feb - May)	Summer (Jun - Aug)	Fall (Sep - Dec)	Spring (Feb - May)	Culminating Experience (Internship/ Exam/ Thesis)	Thesis: Professor Luella Fu
Unit	9 units	6 units	-	9 units	6 units		
1	MATH 742: Advanced Probability Models	MATH 761: Computational Statistics		CSC 878: Big Data Platforms and Systems	CSC 510: ★ Analysis of Algorithms I		+
2	MATH 748: ★ Theory and Applications of Statistical and Machine Learning	CSC 308 ★ Introduction to Machine Learning for Interdisciplinary Data Scientists		CSC 665: ★ Artificial Intelligence	CSC 620: ★ Natural Language Technologies		+
3	MATH 760: Multivariate Statistical Methods			MATH 898: Master's Thesis		Program courses	4 courses (Math: 12 units)
						Total	30 credits

※ 30 graduate-level units is required for graduation

★ Important courses for me to enhance my knowledge are needed



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 development of key factors, predictive analytics, and recommendation system

My interest in Data Science

- ✓ **Recommendation model**
- ✓ Time-series analysis
- ✓ Sales & demand forecasting
- ✓ **Predictive analytics and modeling**
- ✓ **Social data analysis**
- ✓ Customer satisfaction prediction
- ✓ **Development of key factors**

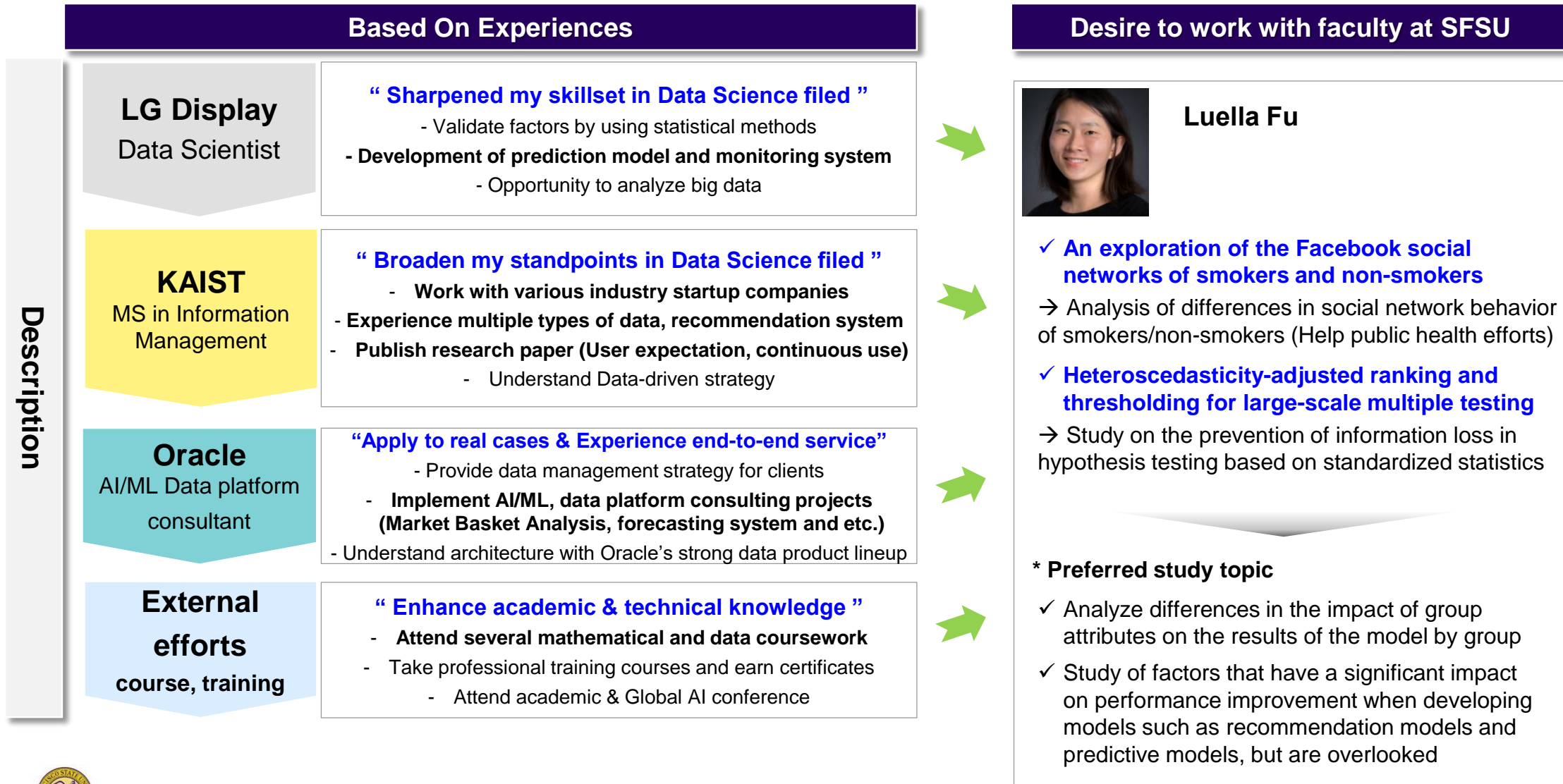


Deepen my knowledge at SFSU

- ✓ Explainable recommendation
- ✓ Graph-based recommendation
- ✓ Sentiment-based recommendation
- ✓ Media (cartoon, music, book) recommendation
- ✓ Social data analysis
- ✓ High-dimensional Time-series analysis
- ✓ Forecasting for new launching products (Without historical data)
- ✓ Development of key factors (Find out factors affecting the model's performance)
- ✓ Predictive modeling

To be CLEAR... Why SFSU MS in Statistical Data Science program ? (My direction of study)

- ✓ Deeply impressed by Luella Fu's research, I would like to analyze differences in the impact of group attributes on the results by group and study important factors that affect results, but are overlooked



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