MS in
Statistics program

"To fulfill my goal of becoming a global solution provider"

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California State University, Fullerton

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My approach & Understanding

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 CSU Fullerton, 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.
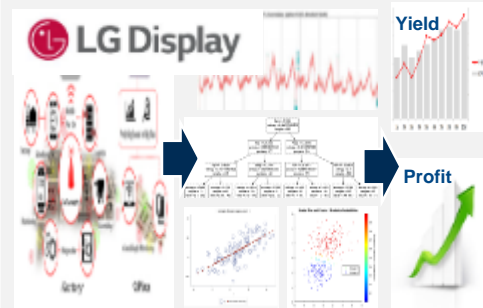
To be CLEAR… Self Introduction (Professional)

✓ **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 California State University, Fullerton**

My expertise in Data Science field and my enthusiasm for learning

• Data Scientist (LG Display) ('13.01~'19.05)	• KAIST Master of Science in Information Management ('16.09~'19.01)	• AI/ML & Data platform Consultant (Oracle) ('19.05~present)	• Enthusiasm for learning (~Continuous)

" Provide business value by analyzing data and developing models so as to excavate insights for the front-line employees "
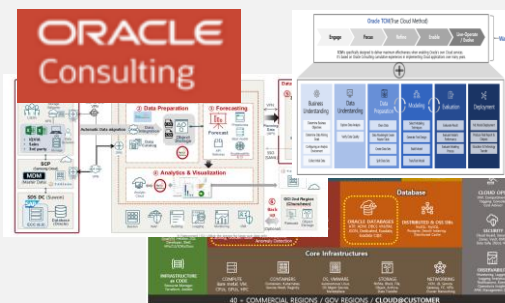
" An interdisciplinary program that combines data analysis, strategy, and management (Lectures: Business Analytics, Big data Analysis, App development, IT system Design, IT business Management) "
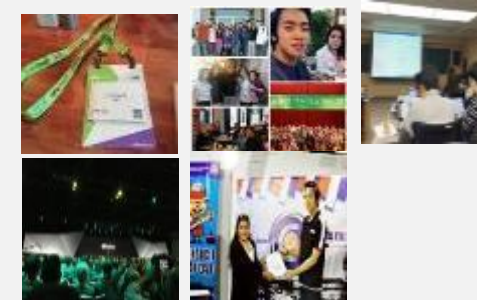
" Provide consulting services to design data architecture and develop AI/ML & Data platform to build data-driven enterprise "

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

Column 1:

• **Implement multiple ML/data analysis projects**
→ Develop an anomaly detection model and monitoring system with ANN algorism, enabling early error detection of pixel deposition facilities. (Reduced annual defect rate by 0.2%)
▶ Python, SAS(JMP), Spotfire, Matlab, Excel,

Column 2:

• **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

Column 3:

• **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)

Column 4:

• **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 Statistics program at CSU Fullerton

✓ **The statistics program offers a modern and state-of-the-art technology-oriented curriculum that prepares students for any career in government, business or industry that involves applications of statistics**

CSU Fullerton's MS in Statistics Program overview

Program objectives	Program provide	Learning outcomes
" State-of-the art curriculum with the aim of serving "		**" Highly in demand in almost every sector of the workforce "**

Program objectives

1 Growing demand for professionals with knowledge

2 Training in data science

3 Quantitative analysis

Program provide

Required Core Courses

+

Special Topic

+

Culminating Experience

Learning outcomes

Manufacturing

Information

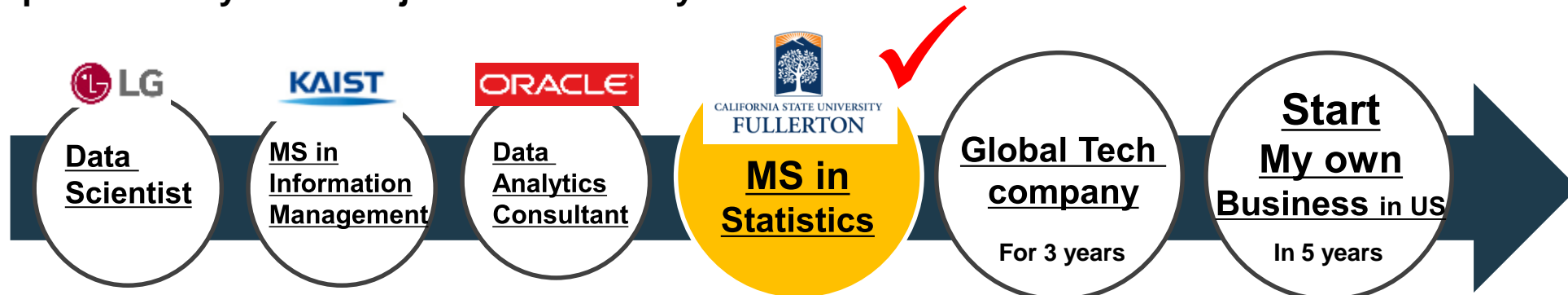Finance and Insurance

Professional and technical services

Management

…

Government and social organization

To be CLEAR… Why CSU Fullerton MS in Statistics program ? (My Progress)

✓ **Having a master's degree from CSU Fullerton which is the best statistics 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 CSU Fullerton which is the best Statistics 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 Statistics program at CSU Fullerton.

To be CLEAR… My course schedule at CSU Fullerton

✓ **Quench my thirst through core and a consulting project (In particular ★) to fulfill my future objective**
Plan to take 4 semesters (30 credits): Core (21), Special (3), and Culminating experience (6)

	Year 1			Year 2		Curriculum	
Calendar	**Fall (Sep- Dec)**	**Spring (Feb - May)**	**Summer (Jun - Aug)**	**Fall (Sep - Dec)**	**Spring (Feb - May)**	**Culminating Experience**	**Statistical Consulting (6 units)**
Unit	6 units	6 units	6 units	6 units	6 units		
1	Math 530: Probability and Statistics Inference	Math 534: Statistical Computing	Math 531T: Special Topics in Statistics	Math 533: Statistical Learning	Math 539: ★ Statistical Consulting	**✚**	
						Special Topic	**1 course (3 units)**
2		Math 536: ★ Generalized Linear Models	Math 537: ★ Multivariate Statistics	Math 538: ★ Bayesian Analysis		**✚**	
						Required Core courses	**7 courses (21 units)**
3						**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 predictive analytics & modeling, simultaneous inference, and survival analysis.**

My interest in Data Science

✓ Recommendation model

✓ Time-series analysis

✓ Sales & demand forecasting

✓ **Predictive analytics and modeling**

✓ **Simultaneous Inference**

✓ **Survival analysis**

✓ Social media analysis

Deepen my knowledge at CSU Fullerton

✓ Explainable recommendation

✓ Graph-based recommendation

✓ Sentiment-based recommendation

✓ Media (cartoon, music, book) recommendation

✓ **Prediction of corporate insolvency using survival analysis**

✓ **Case-based reasoning**

✓ Forecasting for new launching products (Without historical data)

✓ Development of driver factors (Find out factors affecting the model's performance)

✓ **Predictive modeling**

To be CLEAR… Why CSU Fullerton MS in Statistics program ? (My direction of study)

✓ **Deeply impressed by Jamshidian and Poynor's study, I would like to study a method of effective customer management using case-based inference and forecast corporate bankruptcy using survival analysis**

Based On Experiences		Desire to work with faculty at CSUF

Description

LG Display
Data Scientist

" **Sharpened my skillset in Data Science filed** "
- Validate factors by using statistical methods
- **Development of prediction model and monitoring system**
- Opportunity to analyze big data

→ **Mortaza (Mori) Jamshidian**

✓ **Simultaneous Inference and Data Modeling**
→ Study on effective customer management - case-based reasoning (Similarities between cases are evaluated to find similar neighbor cases, and predictive results for new cases are generated using the results of neighbor cases)

KAIST
MS in Information Management

" **Broaden my standpoints in Data Science filed** "
- **Work with various industry startup companies**
- **Experience multiple types of data, recommendation system**
- **Publish research paper (User expectation, continuous use)**
- Understand Data-driven strategy

Oracle
AI/ML Data analytics consultant

"**Apply to real cases & Experience end-to-end service**"
- Provide data management strategy for clients
- **Implement AI/ML, data platform consulting projects (Market Basket Analysis, forecasting system, and etc.)**
- Understand architecture with Oracle's strong data product lineup

→ **Valerie Poynor**

✓ **Survival Analysis**
→ Study on forecasting corporate bankruptcy using survival analysis (Estimating and analyzing the survival period or risk probability of stock-listed companies using survival analysis techniques)

External efforts
course, training

" **Enhance academic & technical knowledge** "
- **Attend several mathematical and data coursework**
- Take professional training courses and earn certificates
- Attend academic & Global AI conference

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