UC SANTA BARBARA

MA in Statistics (Data Science) program

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

Written by Minseok Oh
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CONTENTS

My approach & Understanding

1. Self Introduction (Personal)
2. Self Introduction (Professional)
3. My understanding of MA in Statistics program
4. Why UCSB ? (My progress)
5. My course schedule at UCSB
6. My area of interest
7. Why UCSB ? (My direction of study)

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.**



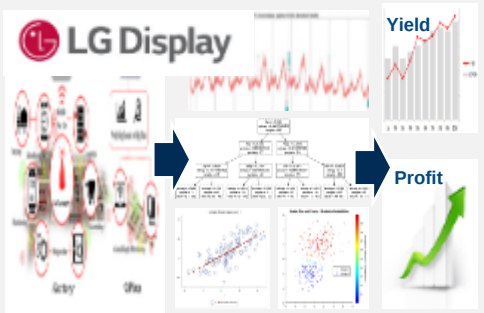
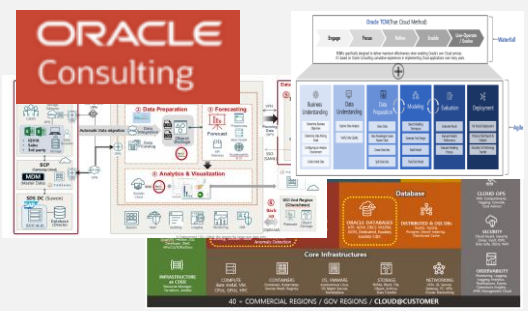
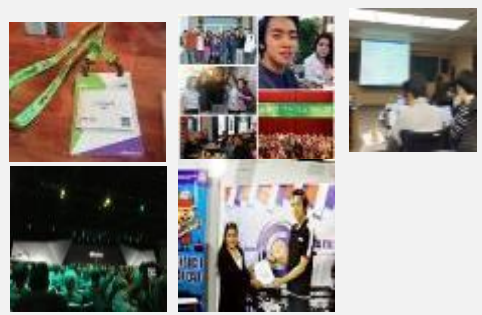


- ✓ Have been grateful and satisfied with all the things given to me - a stable family, faith and love, and financial leisure that does not overflow. If I hadn't practiced sharing, such as IT Volunteer work in Ecuador and supporting students in Zimbabwe, I might have lived a very personal life. However, 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 UCSB, 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 the University of California Santa Barbara**

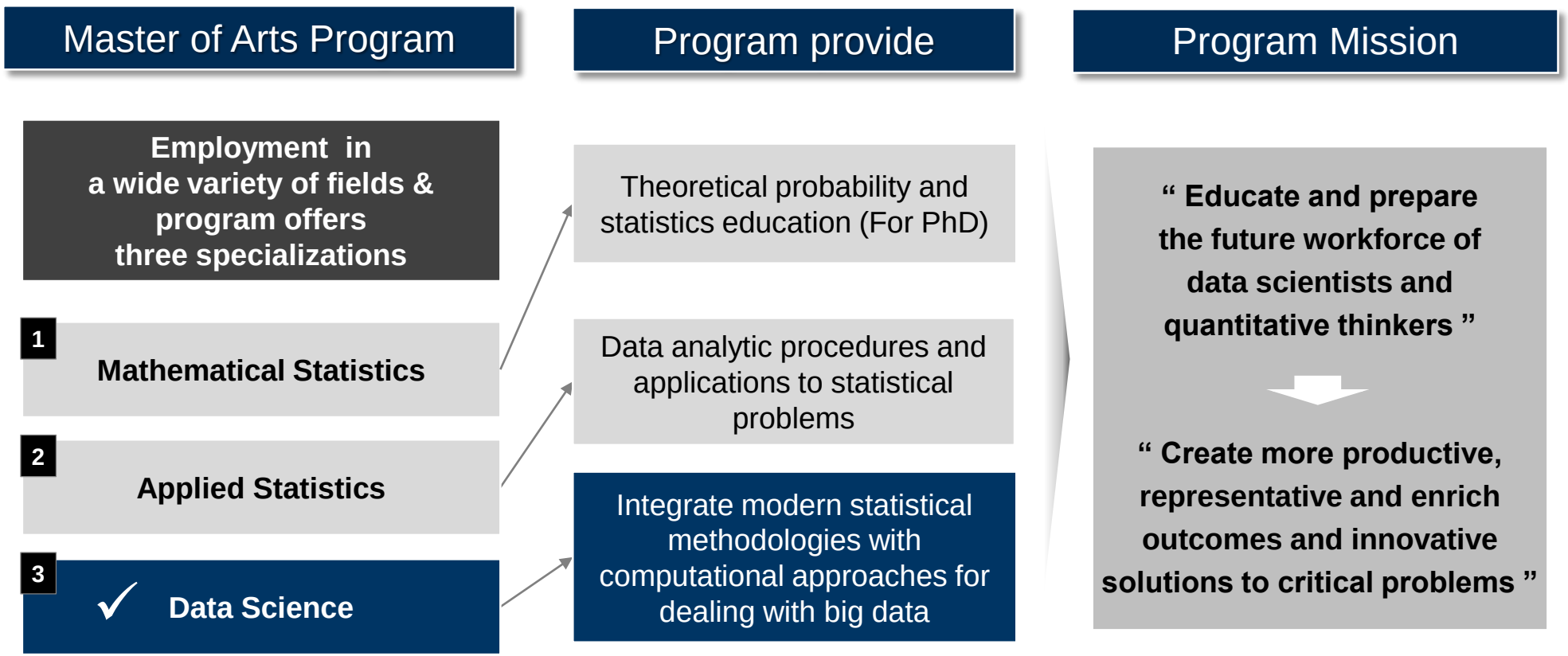
My expertise in Data Science field and my enthusiasm for learning

• 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 te chnical knowledge in Data Science and academic subjects"**
			
• **Implement multiple ML/data analysis projects** → Develop an anomaly detection 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,	• **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	• **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)	• **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 MA in Statistics program at UCSB

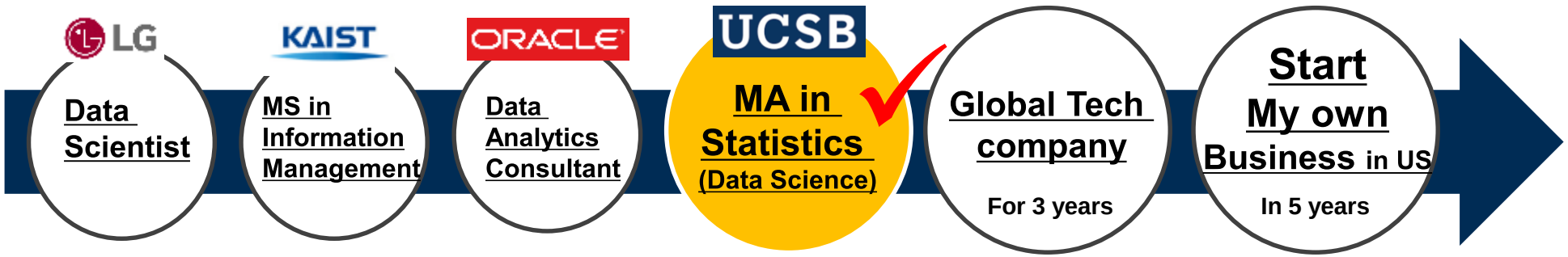
✓ **MA in Statistics program offers three specializations including Data Science to educate and prepare the future workforce of data scientists and quantitative thinkers for better solutions to critical problems**

UCSB's MA in Statistics Program overview



To be CLEAR… Why UCSB MA in Statistics (Data Science) program ? (My Progress)

- ✓ **Having a master's degree from UCSB which is the best Statistics (Data Science track) 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 UCSB 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 MA in Statistics (Data Science track) program at UCSB.

To be CLEAR… My course schedule at UCSB (Data Science Specialization)

✓ **Quench my thirst through core and elective coursework (In particular★) to fulfill my future objective**
Plan to take 5 quarters (42): Core (20), Graduate level electives (16), Additional electives (6)

	Year 1			Year 2	
Calendar	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 5
Units	8 units	8units	8 units	10 units	8 units
1	PSTAT 220A: Advanced Statistical Methods	PSTAT 220C: Advanced Statistical Methods	PSTAT 230:★ Seminar and Projects in Statistical Consulting	PSTAT 235:★ Big Data Analytics	PSTAT 276: Advanced Mathematical Finance
2	PSTAT 220B: Advanced Statistical Methods	PSTAT 231:★ Introduction to Statistical Machine Learning	PSTAT 234:★ Statistical Data Science	PSTAT 232: Computational Techniques in Statistics	PSTAT 274: Time Series
3				PSTAT 250: Quantitative Methods in the Social Sciences Colloquium	

★Important courses for me to enhance my knowledge are needed

Curriculum	
Exam (Data Science Track)	Qualifying examination ((Twice) 1st exam: 220A~C, 2nd exam: PSTAT 230
Electives	2 courses (6 units)
Graduate level electives	4 courses (16 units)
Core course requirements	5 courses (20 units)
Total	42 credits

※ Graduate Requirement: 42units

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 financial data analysis, human behavior analysis, and forecasting**

My interest in Data Science

- ✓ Recommendation model
- ✓ Time-series analysis
- ✓ Forecasting
- ✓ Customer segmentation
- ✓ Financial data analysis
- ✓ Customer satisfaction prediction
- ✓ Social media analysis

Deepen my knowledge at UCSB

- ✓ Explainable recommendation
- ✓ Graph-based recommendation
- ✓ Sentiment-based recommendation
- ✓ Media (cartoon, music, book) recommendation
- ✓ Customer churn rate
- ✓ High-dimensional Time-series analysis
- ✓ 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 UCSB MA in Statistics (Data Science track) program ? (My direction of study)

✓ **Deeply impressed by Franks and Pedersen's study, I would like to study with them the behavioral characteristics of players, predicting customer churn rates, and predicting customer income levels**

Based On Experiences

Description

LG Display
Data Scientist

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

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 platform 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

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

Desire to work with faculty at UCSB

Alexander Franks

Modeling player and team performance in basketball

→ Focus on methods for quantifying and characterizing basketball gameplay

→ Metrics for overall player value, defensive ability, shot modeling, and methods for understanding performance

Hal Pedersen

Financial economics and its application to insurance

→ Forecasting income levels by customer using external data such as investment amount, housing price, consumption propensity, and etc.

→ Predict churn rate within a few months through the analysis of investment transactions, product contracts, and credit inquiry information of customers leaving

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