

Jia-Wei (Jessie) Liang

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Education

Columbia University

Master of Science, Applied Analytics

New York, NY
Aug 2016 ~ Aug 2017

- Coursework: research design, analytics method, database architecture, data visualization, machine learning

National Tsing Hua University

Bachelor of Science, Quantitative Finance

Hsinchu, Taiwan
Sep 2012 ~ Jun 2016

- Coursework: probability theory, numerical technique, programming, portfolio management, derivatives pricing

Research Experiences

Applied Materials

Sunnyvale, CA
Oct 2019 ~ Present

- *Paper under review: Using SEM Data to Detect Wafer Abnormality*
 - > Prevent TEM data usage for cost savings and improve production output
- *co-work with **Two Pore Guys (2PG)*** June 2018 ~ Sep 2018
 - > Worked with 2PG to create a method for reducing and controlling the speed of DNA that uses two independently controllable nanopores operated with an active control logic
- *co-work with the **State University of New York (SUNY)*** Oct 2017 ~ Nov 2017
 - > Industry research and business forecast for future 15 years' return on the decision of establishing Materials Engineering Technology Accelerator (META Center) on the SUNY Polytechnic Institute campus in Albany

American International Group (AIG)

Modelling the Total Cost of Risk (TCOR) on Product Recall Cases

New York, NY
June 2017 ~ Aug 2017

- > Worked with AIG to formulate effective means for better control of losses (costs) from product recalls

Google

Innovative Strategies to Increase the Sales of Google Merchandise Store

New York, NY
Feb 2017 ~ May 2017

- > Analyzed the click-through rate in different merchandise categories and its related sales increase
- > Create mobile website that user interface design is functionally and aesthetically appeals to enhance user experience

Relevant Projects

- Data visualization project: *Analysis on the US Baby Name Since 1910* Summer 2017
<https://public.tableau.com/profile/jia.wei.liang#!/vizhome/BabysnametrendinUS/Story1>
- Machine learning project: *Sentiment Analysis and Corn Price Movement and Prediction* Summer 2017
Built models on the prediction of future corn price movements by using natural language processing and text analysis
- Data analysis project using SQL: *Prediction on Credit Card Default* Summer 2017
Improved credit scoring by predicting probability of credit default and the most common default group
- Data analysis using R programming: *Prediction of Movie Ratings Based on IMDb Scores* Spring 2017
Forecasted the success of a movie before its release, and the guidelines to follow in order to make a good movie
- Research project: *Define the Economic Value of Abalones Through Its Physical Measurements* Fall 2016
Applied SAS (JMP) for data cleansing and proposed solutions through various statistical techniques
- Research project using MATLAB: *Determine the Best Airplane Ticket Price* Spring 2015
Analyzed the historical volatility of the prices and applied Monte Carlo simulation to obtain different pricing paths

Work Experiences

Applied Materials

Sunnyvale, California

Business Intelligence Analyst

Aug 2017 ~ Present

- Spearheads the entire Chinese semiconductor market for Chemical Mechanical Planarization products
- Liaisons between sales and engineering teams; designs and manages pricing proposals and optimal tool configurations
- Analyzes clients' tool performance datasets and creates visualizations in order to provide intuitive strategies
- Sets annual revenue goals and annual tool forecasts for our manufacturing sites and suppliers

Chinatrust Commercial Bank Investments

Taipei, Taiwan

Intern, Investment Business

Jul 2015 ~ Aug 2015

- Composed a research proposal predicting future performances of targeted 4 companies in the ocean shipping industry
- Improved clients' financial performances by analyzing different investment strategies on a myriad of financial vehicles

Chinatrust Commercial Bank

Taipei, Taiwan

Intern, Personal Trust Department

Jul 2014 ~ Aug 2014

- Reduced the customer outreach time by building and organizing databases of over 2,500 high-net-worth (HNW) clients
- Completed 2 research papers on strategies to engage HNW clients, and proposed modifications to the banking systems

Standard Chartered Bank

Singapore

Intern, Wealth Master Program

Jun 2014

- Optimized the decision making process by analyzing various investment approaches on different financial products

Skill Sets

- Language: English, Korean (conversational), Mandarin Chinese
- Programming & Software: GIS, JMP, MATLAB, Python, R, SPSS, SQL, STATA, Tableau