Analyzed inline electrical/functional data and wafer final test (WFT) yields of 14HP technology using JMP/SQL/SAS/Python. Performed data mining to find out the root causes of yield degradation, thus driving delivery of IBM high-performance server processor chips (P9 and zMidas).   
• Investigated the correlation between failure patterns of eDRAM memory array and yield impact through pattern recognition algorithm and SAS calculation for 22/14 nm technology.  
• Developed bash script to include production data sets for regression testing and display most interesting historical patterns. Set up the cron job to execute the bash script for daily analysis.  
• Coordinate with various engineering teams including wafer final test, failure analysis, reliability, product performance and packaging to enable manufacturability.  
• Maintain and develop existing data mining tools to enhance data analysis infrastructures

I joined IBM as a Product Characterization and Yield Management Engineer in 2015. During the 14nm technology development and manufacture, I gained strength in IBM product characterization, data analytics/visualization, data mining, interfacing with the database, and root cause understanding. Prior to coming to IBM, I studied in the Electrical Engineering department at the University of California, Los Angeles (UCLA), focusing on solid-state electronics and circuit design. Through projects of transistor design, I acquired in-depth and extensive knowledge in TCAD simulation. While researching at UCLA, I developed a portable readout circuit system for In2O3/RGO gas sensors. I also learned to implement a pipelined analog-to-digital converter (ADC) and Fast Fourier transform (FFT) processors from course projects. Before joining UCLA, I conducted research on III-V semiconductor materials (InN) for the applications of ion-sensitive FETs and Pt-catalyzed gas sensors at National Tsing-Hua University. In 2008 summer, I worked in the Process Integration Engineering department as a summer intern at Taiwan Semiconductor Manufacturing Company (TSMC).  
  
In short, my core strength is in (1) Data engineering, analytics, mining; (2) Product yield characterization and device physics; (3) Python, SAS, SQL, and Dash programming.

The decision to pursue a Master of Information & Data Science at UC Berkeley and pivot my career to data science will go down as one of the top five decisions in my life.  
  
Throughout my career in eCommerce, I wrestled with, wrangled, sliced/diced, and modeled data to assist me with making important business decisions. I used pretty rudimentary tools to do it (knowing what I know now).  
  
I was exposed to machine learning and data science several years ago at a start-up in San Francisco. The insights and predictive power of machine learning fascinated me so much I decided to “test the waters” and determine if the allure was commensurate with what it would take to pivot my career: over 30 data science and machine learning meet-ups, networking, a 4-month data science bootcamp, and a Master's from UC Berkeley in Information & Data Science.  
  
It was worth every minute.  
  
Now I build machine learning models and am obsessed with coding. I love the challenges of making sure the input data is optimal, creating unique features for solving complex problems, and optimizing model parameters.  
  
Since joining IBM as a Data Scientist, I've been focused on building predictive models in the area of Natural Language Processing.   
  
Skills include: Machine learning, prediction, classification, Python, data creation, data augmentation/transformation, modeling, Bert, Universal Sentence Encoder, abstractive text summarization, ipywidgets, Git, statistics, linear/logistic regression, A/B/multivariate testing.