I developed and maintained the following risk-based models in my previous roles:

* Discover Finance:
  + Created the data mining model (applied the ASCII codes) to investigate the text information converted to the value-based data sets.
  + Integrated the converted text data and other numeric data sets (loan balance, interests spreads, etc.) inputting into regressive models (logit regression models) and applying to the supervised learning for the further coming information.
* Bank of America:
  + Tested and reengineered the procedures for P/L balance to each account by the automatic procedures.
  + Validated and maintained the outcomes of yield-curve models (like the NS (Nelson-Siegel) Regressive Model) for fixed income related products.
  + Maintained and developed the risk -assessed models for product portfolios (Euler allocation model, an extensive Mean-Variance model) to help determine the margin level.
* JPM. Chase:
  + Created and developed data model for financial matrix to aggregate the complex information (commercial loan balance, credit spread, deposit balance change and LTV (Loan to values)).
  + Joint and back-tested the credit score model (scoreboard) for commercial loans & commercial leases applied on the credit risk mitigation (CRM), like the evaluation of risk-based pricing & estimating the default/non-performing loans. The factor results were applied to estimate the RAROC (Risk-Adjusted Return on Capital), CCAR (Comprehensive Capital Analysis and Review), and BCBS (Basel Committee on Banking Supervision).
* BlueStar Energy
  + Developed the regressive model to forecast the hourly electricity load and usage (consumed volume), classified by peak and off-peak zones.
  + Developed and maintained the hourly electricity prices models ( off-peak: mean-reversion model  and peak: attached the jump-division to the pricing model).