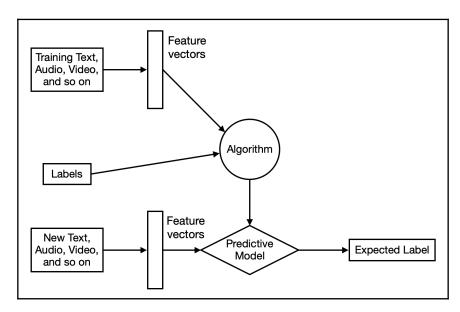
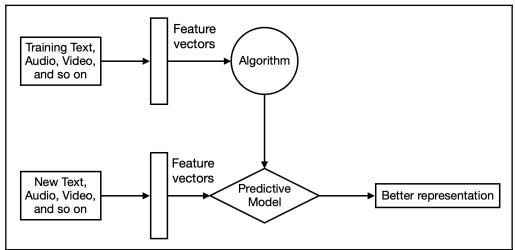
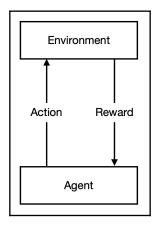
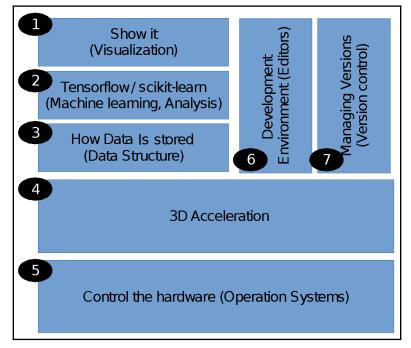
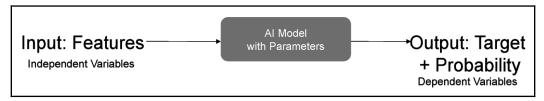
#### **Chapter 1: The Importance of AI in Banking**

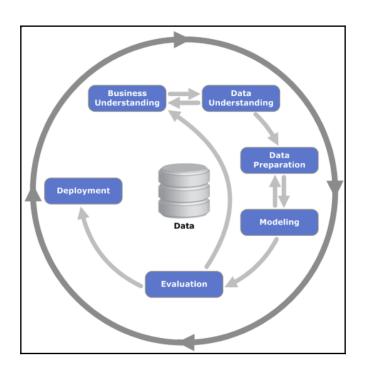




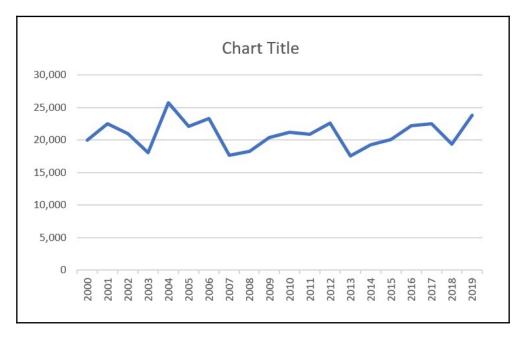


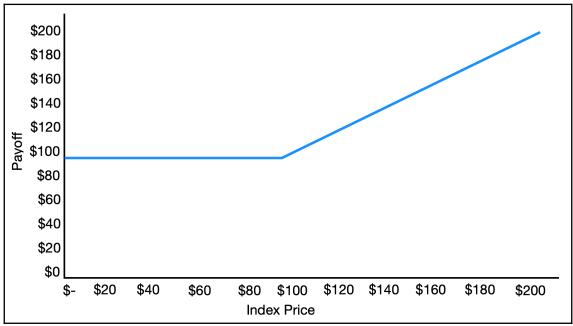


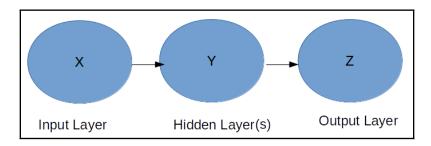


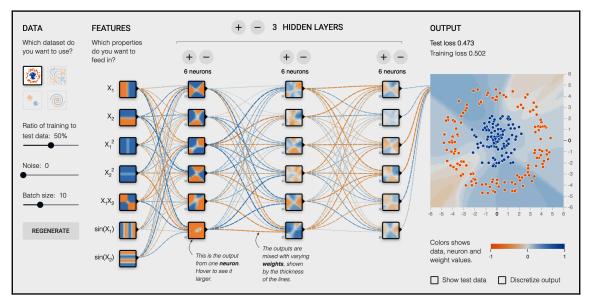


#### **Chapter 2: Time Series Analysis**







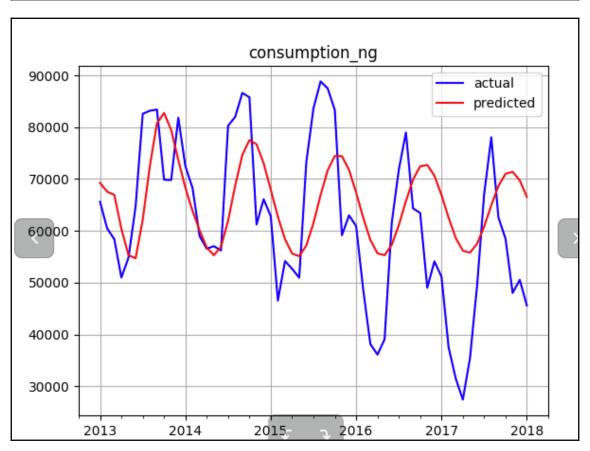


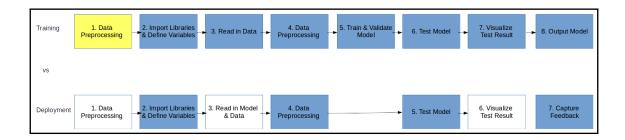
A	В					
Average cost of fossil fuels	for electricity generation coal California electric power (to					
https://www.eia.gov/openda	ta/qb.php?category=41619&sdid=ELEC.COST.COW-CA-					
08:07:14 GMT+0800 (HKT)						
Source: U.S. Energy Information Administration						
Month	Series ID: ELEC.COST.COW-CA-98.M dollars per tons					
Jan 2018	0					
Dec 2017	0					
Nov 2017	0					
Oct 2017	0					
Sep 2017	0					
Aug 2017	0					
Jul 2017	0					
Jun 2017	0					
May 2017	0					
Apr 2017	0					
Mar 2017	0					
Feb 2017	0					
Jan 2017	0					

	Years Ended December 31,			
(in millions, except per share amounts)	2017	2016	2015	
Operating Revenues				
Regulated electric	\$21,177	\$21,221	\$21,379	
Regulated natural gas	1,734	863	536	
Nonregulated electric and other	654	659	456	
Total operating revenues	23,565	22,743	22,371	
Operating Expenses				
Fuel used in electric generation and purchased power	6,350	6,625	7,35	
Cost of natural gas	632	265	143	
Operation, maintenance and other	5,788	6,085	5,539	
Depreciation and amortization	3,527	3,294	3,05	
Property and other taxes	1,233	1,142	1,12	
Impairment charges	282	18	10	
Total operating expenses	17,812	17,429	17,323	

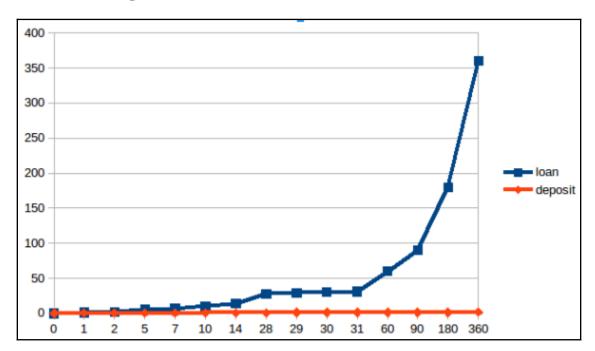
	2017	2016	2015	Source
(i) Sales of regulated natural gas	1734	863	536	Duke Energy
(ii) Cost of natural gas	632	265	141	Duke Energy
(iii) = (ii)/(i) Cost of natural gas to sales	36.45%	30.71%	26.31%	calculated
(iv) Unit Weight Avg Mth Unit cost (\$million/mcf)	3.91	3.18	3.44	US EIA – California
(v) = (iii) / (iv) conversion of Unit Cost to Cost of Materials rat	9.32%	9.66%	7.66%	calculated
(vi) = Weighted average of v by (i)	9.18%	9.18%	9.18%	calculated

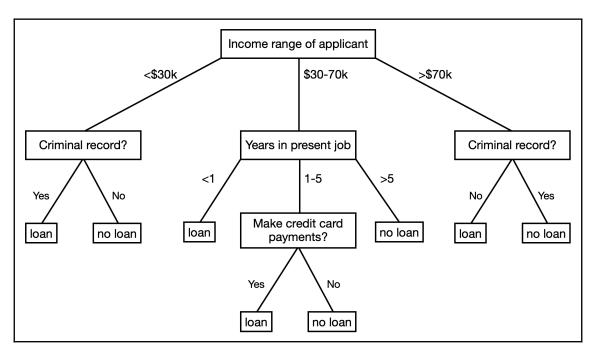


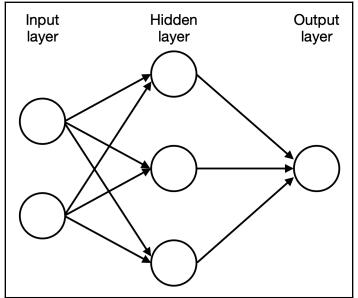


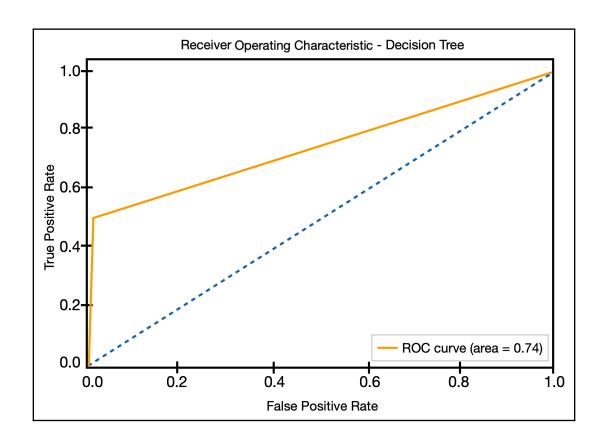


# Chapter 3: Using Features and Reinforcement Learning to Automate Bank Financing

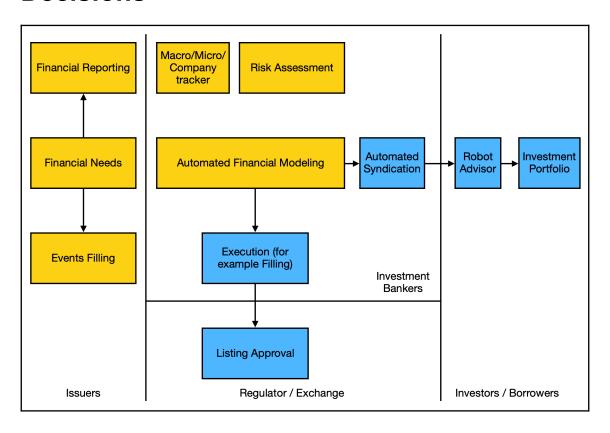




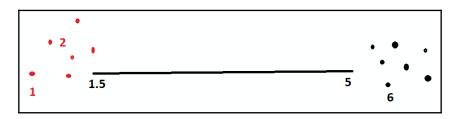


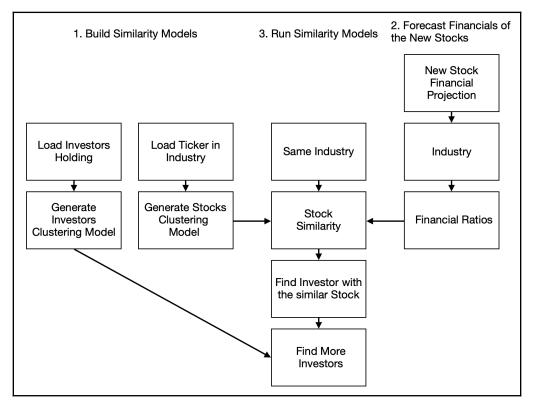


## **Chapter 4: Mechanizing Capital Market Decisions**



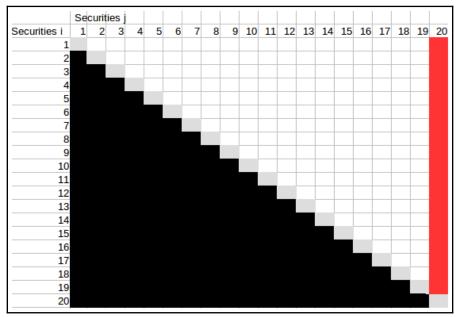
#### **Chapter 5: Predicting the Future of Investment Bankers**

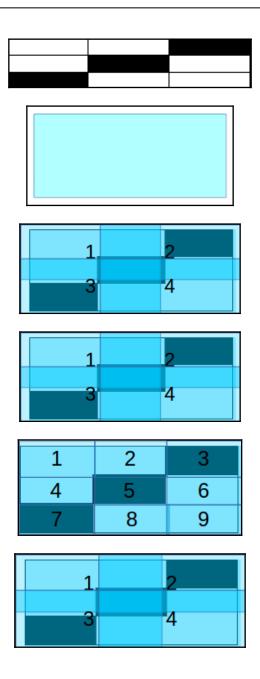


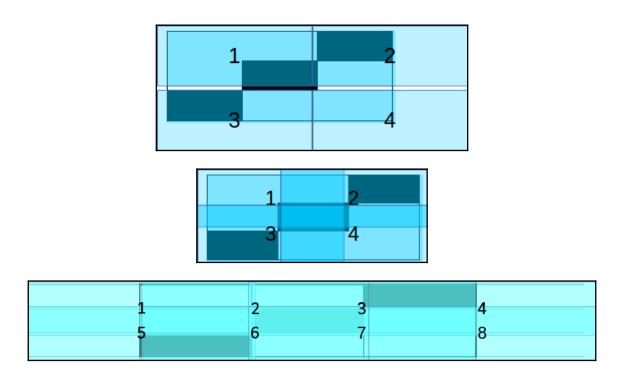


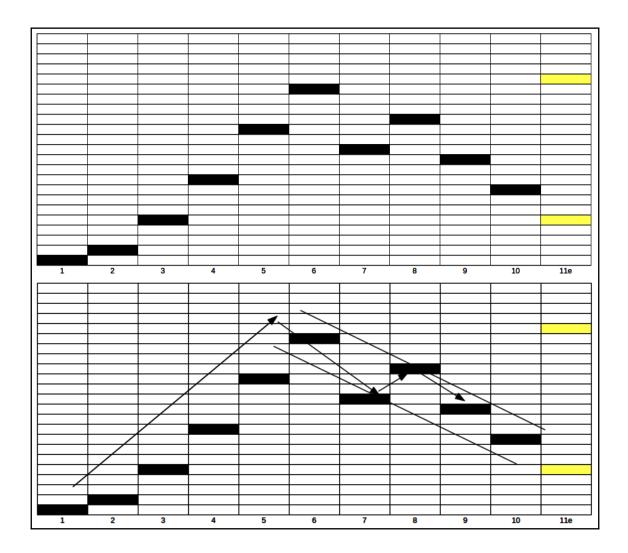
# Chapter 6: Automated Portfolio Management Using Treynor-Black Model and ResNet

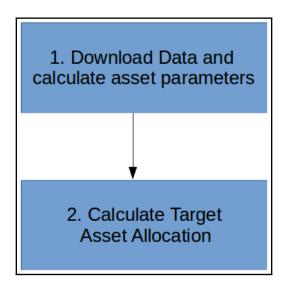


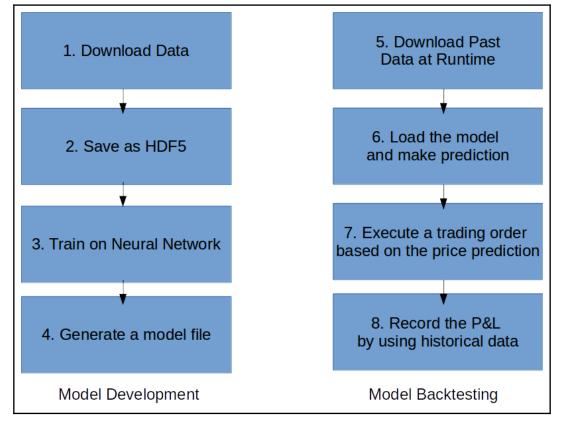




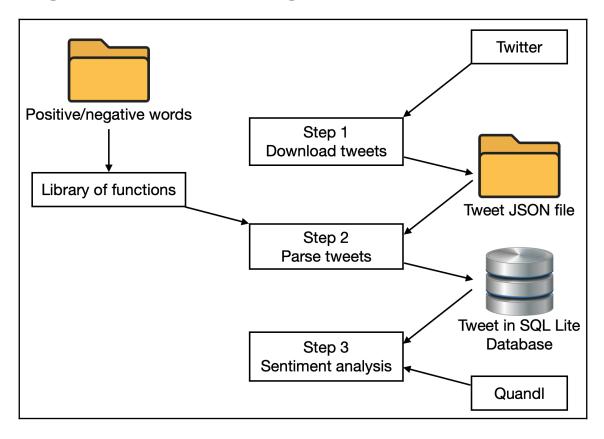


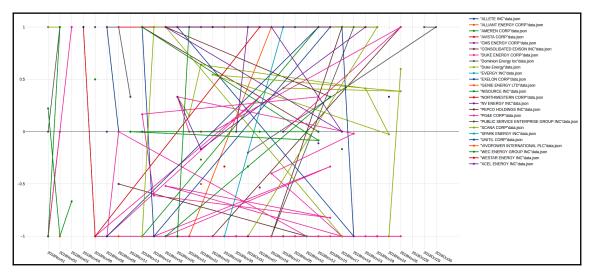


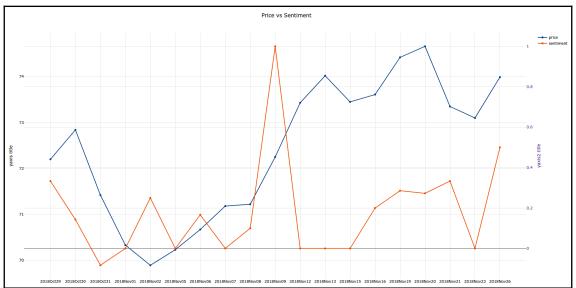


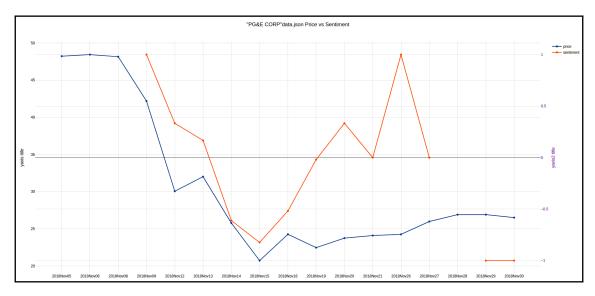


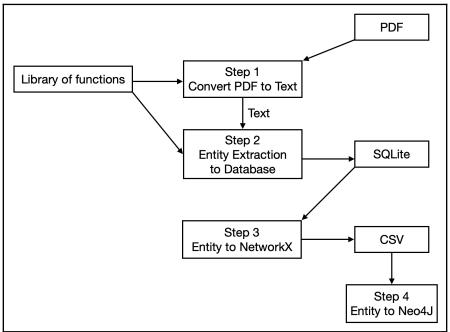
## **Chapter 7: Sensing Market Sentiment for Algorithmic Marketing at Sell Side**

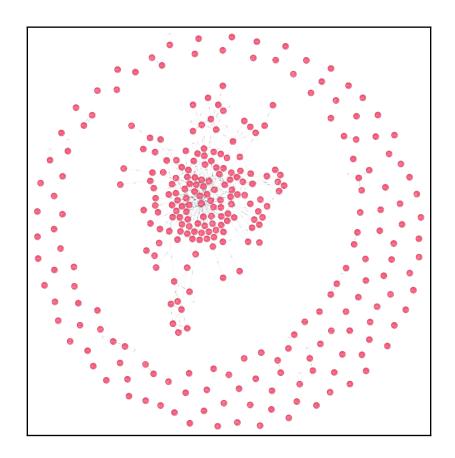




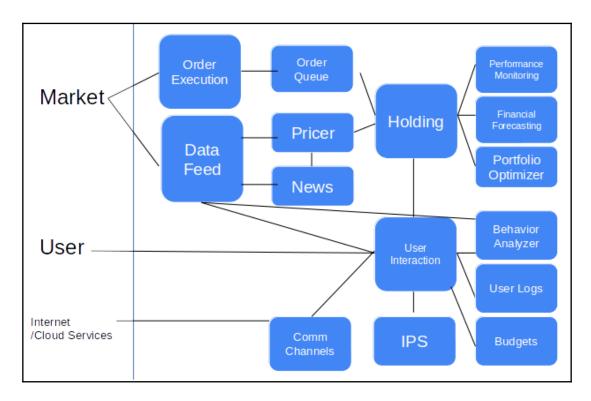








## **Chapter 8: Building Personal Wealth Advisers with Bank APIs**



#### **Chapter 9: Mass Customization of Client Lifetime Wealth**



