



Reimagining the Future with High Performance Computing

Marwell Dalangin
VP - AI Innovation Lab | Data Science Solutions



Our World is Different

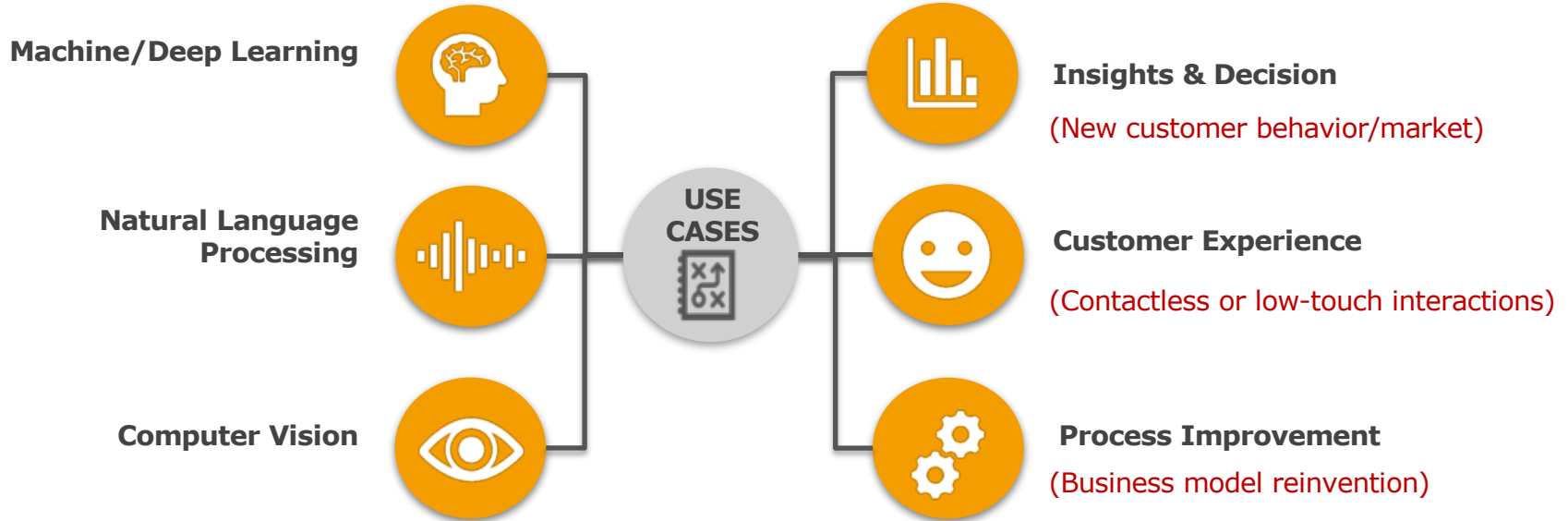
So what now?



(Zukis, 2020)

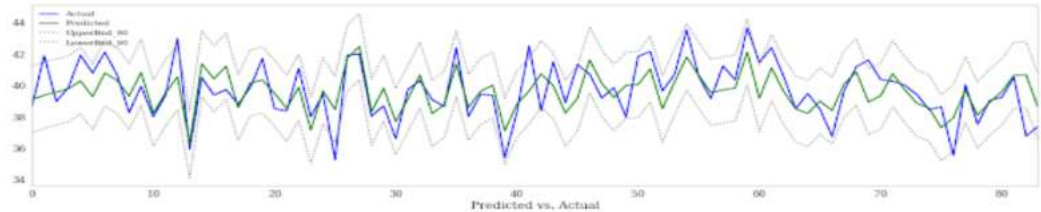
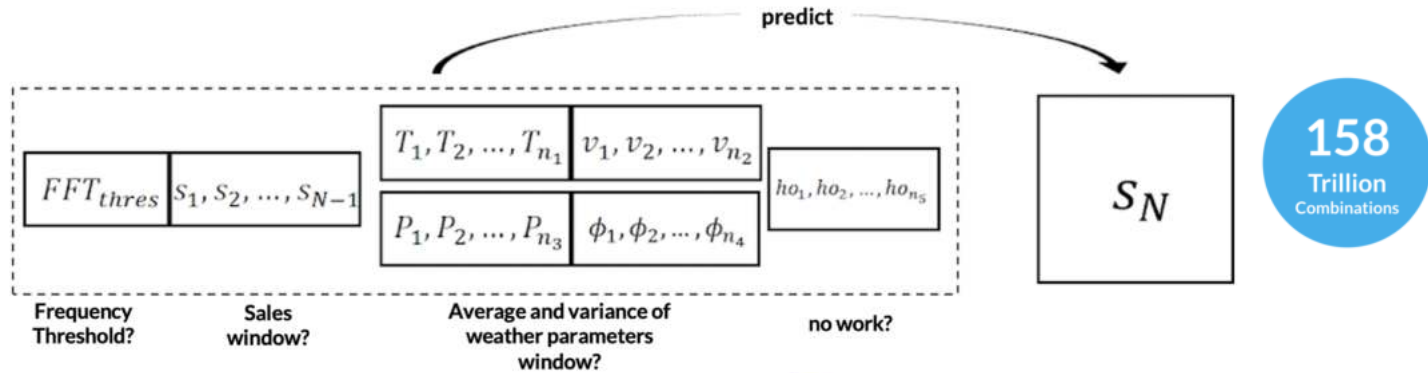
How?

Connect Data Science & AI




Leveraging HPC

A Data-driven Approach to Improve Demand Forecasts



Leveraging HPC

Authenticating customers without human intervention

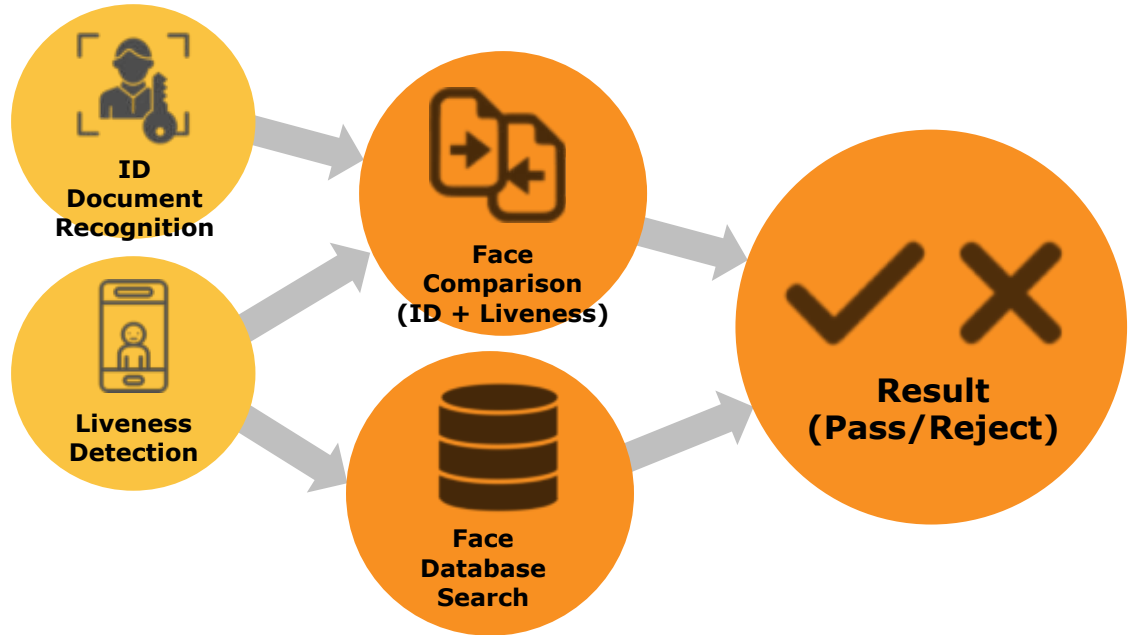


REPUBLIC OF THE PHILIPPINES
Philippine Postal Corporation
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385 Gen. Tulezon Blvd.
Brgy. Rivera
1742 Pasay City

PRN 180141234567 P
24 Aug 85
MNL-DE
01 Dec 17
PREMIUM

Supported Fields	Accuracy
PRN (ID Number)	98.22%
Given Name	94.16%
Surname	95.81%
Sex	97.46%
Date of Birth	94.03%



Leveraging HPC

AI models that accurately read and process any document into structured data output that is usable for automation

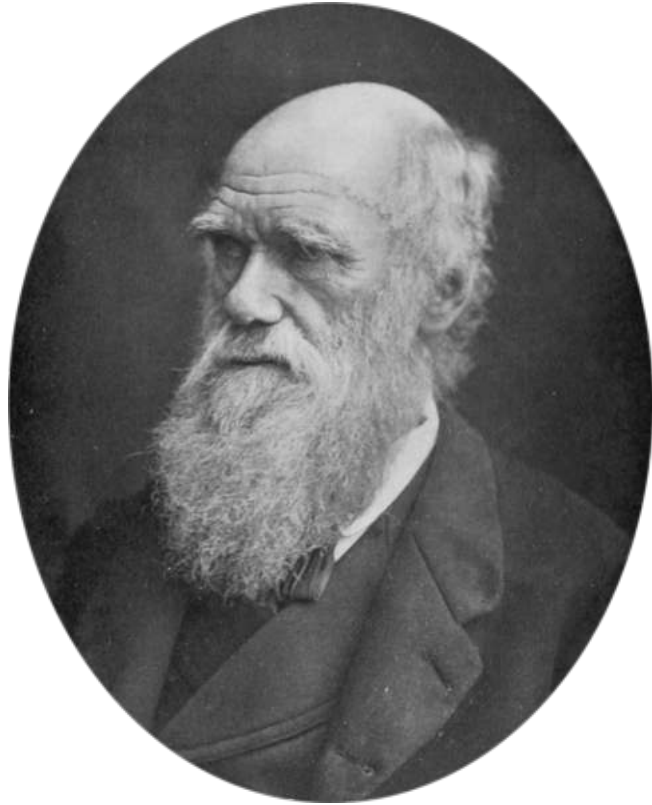
PARENT COMPANY STATEMENTS OF CASH FLOWS		
(In Thousands)		
	Years Ended April 30	
	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES		
Income before income tax	\$9,246,386	\$9,002,776
Adjustments for:		
Depreciation and amortization (Notes 10, 11 and 23)	4,719,268	4,431,188
Interest expense and finance charges (Note 20)	309,052	229,024
Net retirement benefits expense (Note 22)	135,940	115,263
Gain on sale of property, plant and equipment	(1,804)	(3,193)
Interest income	(2,836)	(21,763)
Unrealized foreign exchange gains - net (Note 14)	(85,808)	(49,878)
Operating income before working capital changes	3,899,229	3,221,432
Decrease (increase) in:		
Receivables (Notes 5 and 13)	(2,079,990)	(3,241,994)
Inventory (Note 6)	(1,054,113)	(1,381,992)
Biological assets (Note 7)	(199,995)	(130,564)
Prepaid expenses and other current assets (Note 9)	122,478	(97,160)
Other noncurrent assets (Note 13)	124,479	(67,148)
Income tax receivable (Note 11)	(284,862)	(179,363)
Income (decrease) in:		
Accounts payable and accrued expenses (Note 16)	(407,494)	1,352,423
Other noncurrent liabilities	(360)	(7,864)
Cash generated from operations	4,018,980	3,391,949
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Interest received	23,745	21,748
Contributions paid (Note 23)	(197,619)	(752,203)
Income taxes paid	(391,420)	(295,010)
Net cash provided by operating activities	3,543,686	2,366,484
CASH FLOWS FROM INVESTING ACTIVITIES		
Additions to property and equipment (Note 11)	(5,734,684)	(4,811,722)
Proceeds from sale of property and equipment	3,790	4,029
Net cash used in investing activities	(5,730,894)	(4,807,693)
CASH FLOWS FROM FINANCING ACTIVITIES		
Payments from acquisitions of notes payable (Notes 14 and 30)	198,212,975	40,886,309
Payments of notes payable (Notes 14 and 30)	(195,876,220)	(17,386,371)
Interest paid (Notes 14, 17 and 30)	(384,097)	(275,938)
Net cash flows provided by financing activities	2,052,658	3,074,010
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	(654)	1,157
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(135,404)	629,934
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	830,000	200,066
CASH AND CASH EQUIVALENTS AT END OF YEAR	\$694,596	\$830,000

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SCANNED DOCUMENT TO RAW DATA





“It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change.”

- Charles Darwin