APPLY
INTELLIGENT TECHNOLOGIES

Has spent the past five years preaching market about wide capabilities of AI - Computer Vision.

Has proven the potential of Computer Vision in following industries: Industrial production, Finance, Smart City, Media.

Has started as a programmer and grown to leadership positions in the leading IT companies in Latvia.

His knowledge is built on 20 years of experience in the IT custom development solutions.

Agnis Jakubovics
founder and CEO of **Apply** Intelligent Technologies.

"The measure of intelligence is the ability to change."

Albert Einstein

Nordic Plast

Member of eco baltia group

Case study

BUSINESS ISSUE

Manual product quality monitoring effects production costs and efficiency.

TASK

Achieve fully automatic real-time quality monitoring

CHALLANGE

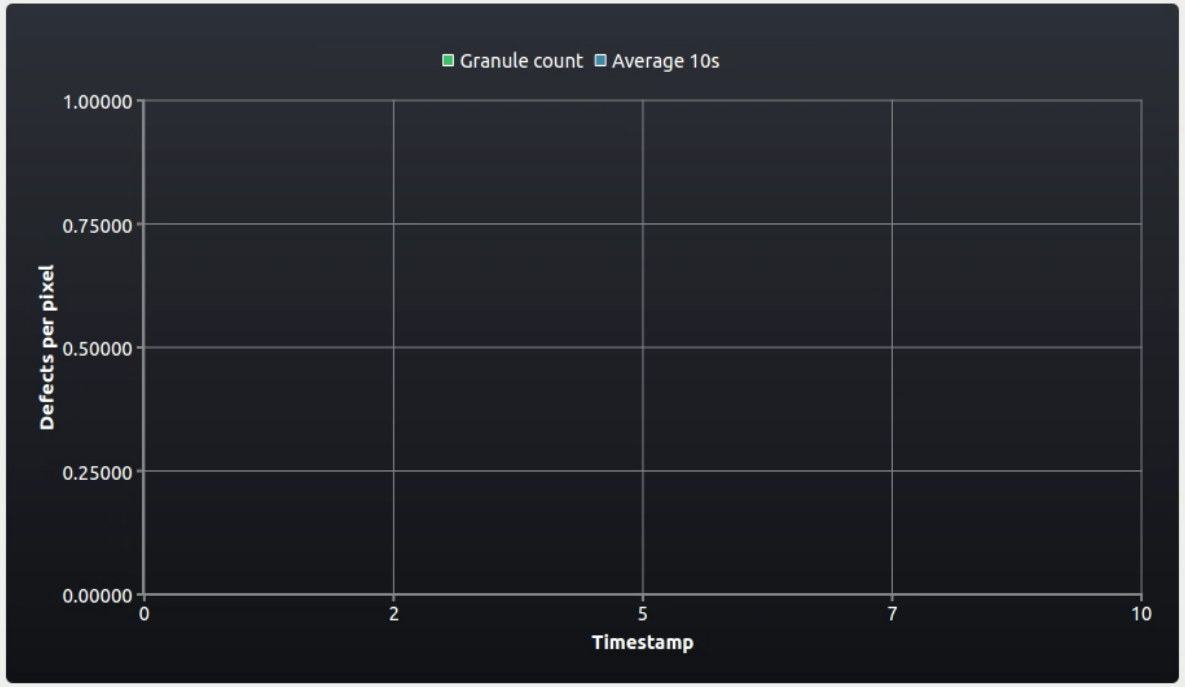
- Regranulat LDPE Grey/Black
  -> size – ⌀5mm x 3mm
  -> weight - 0,05g

- Production capacity ~20 000 000 granulate/h = 1T/h

- In real-time inspect 10% of the product (> 500 obj./sec) and classify found defects

Nordic Plast

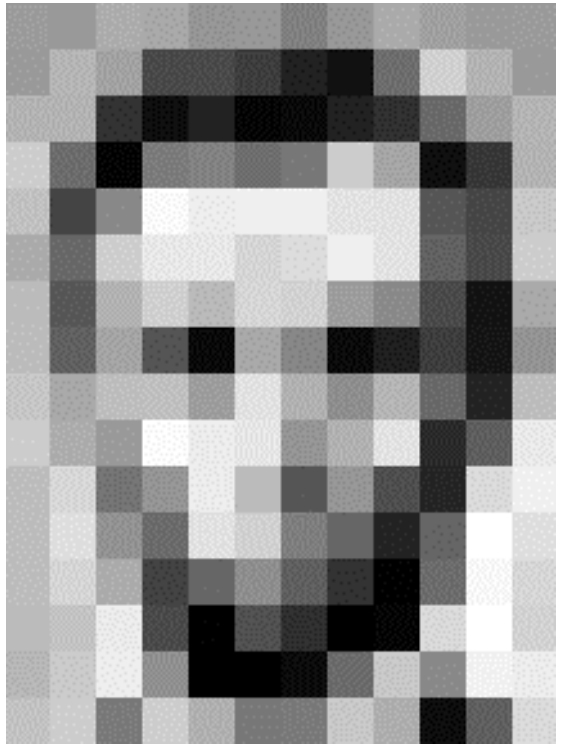
Member of eco baltia group



blackDot	clean	cuts	deformed	hole	pimple	whiteDot	whiteLine	side	double

APPLY
INTELLIGENT TECHNOLOGIES

Artificial Intelligent



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155	182	163	74	75	62	33	17	110	210	180	154
180	180	50	14	34	6	10	33	48	106	159	181
206	109	5	124	131	111	120	204	166	15	56	180
194	68	137	251	237	239	239	228	227	87	71	201
172	105	207	233	233	214	220	239	228	98	74	206
188	88	179	209	185	215	211	158	139	75	20	169
189	97	165	84	10	168	134	11	31	62	22	148
199	168	191	193	158	227	178	143	182	106	36	190
205	174	155	252	236	231	149	178	228	43	95	234
190	216	116	149	236	187	86	150	79	38	218	241
190	224	147	108	227	210	127	102	36	101	255	224
190	214	173	66	103	143	96	50	2	109	249	215
187	196	235	75	1	81	47	0	6	217	255	211
183	202	237	145	0	0	12	108	200	138	243	236
195	206	123	207	177	121	123	200	175	13	96	218

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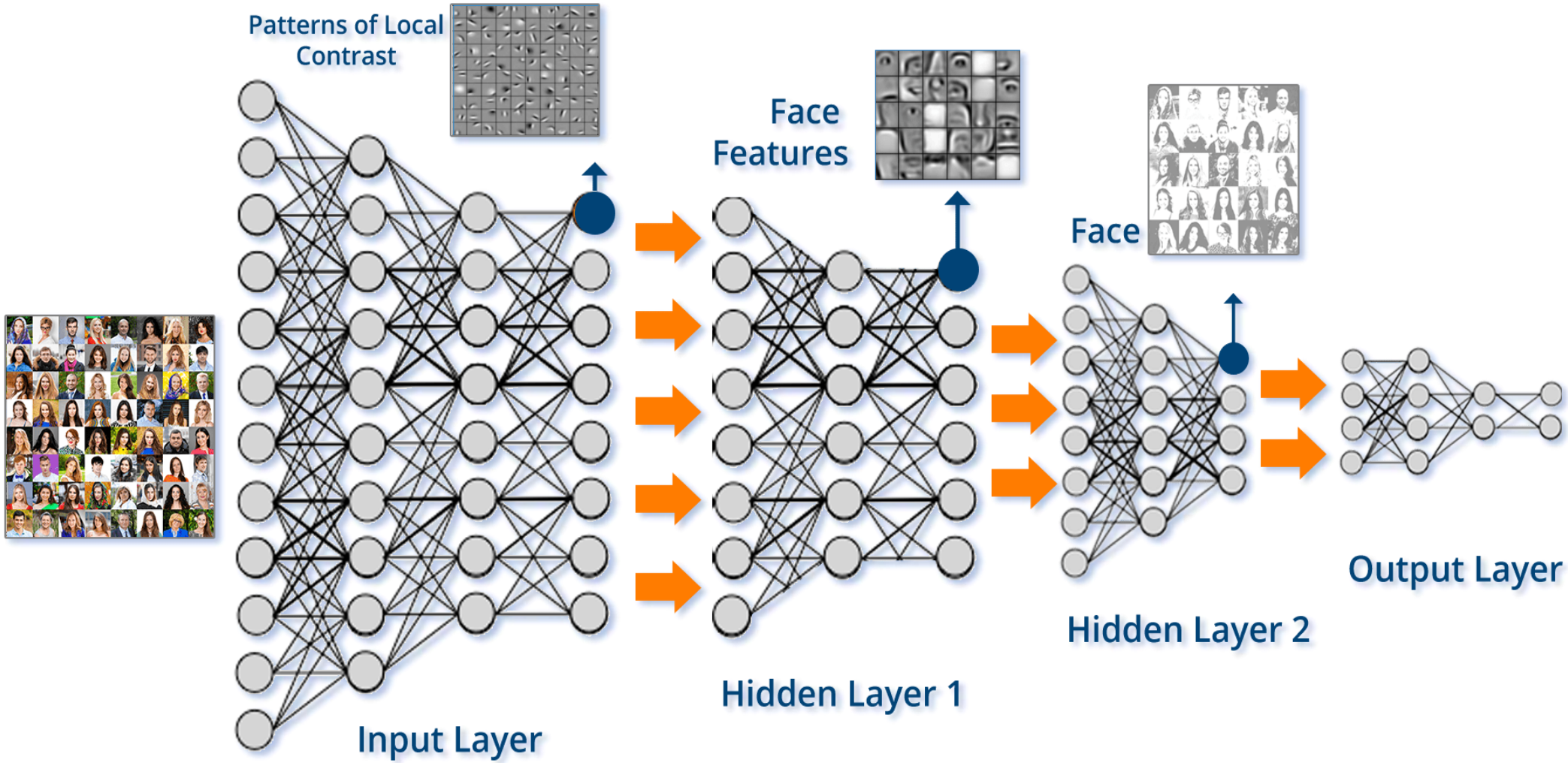
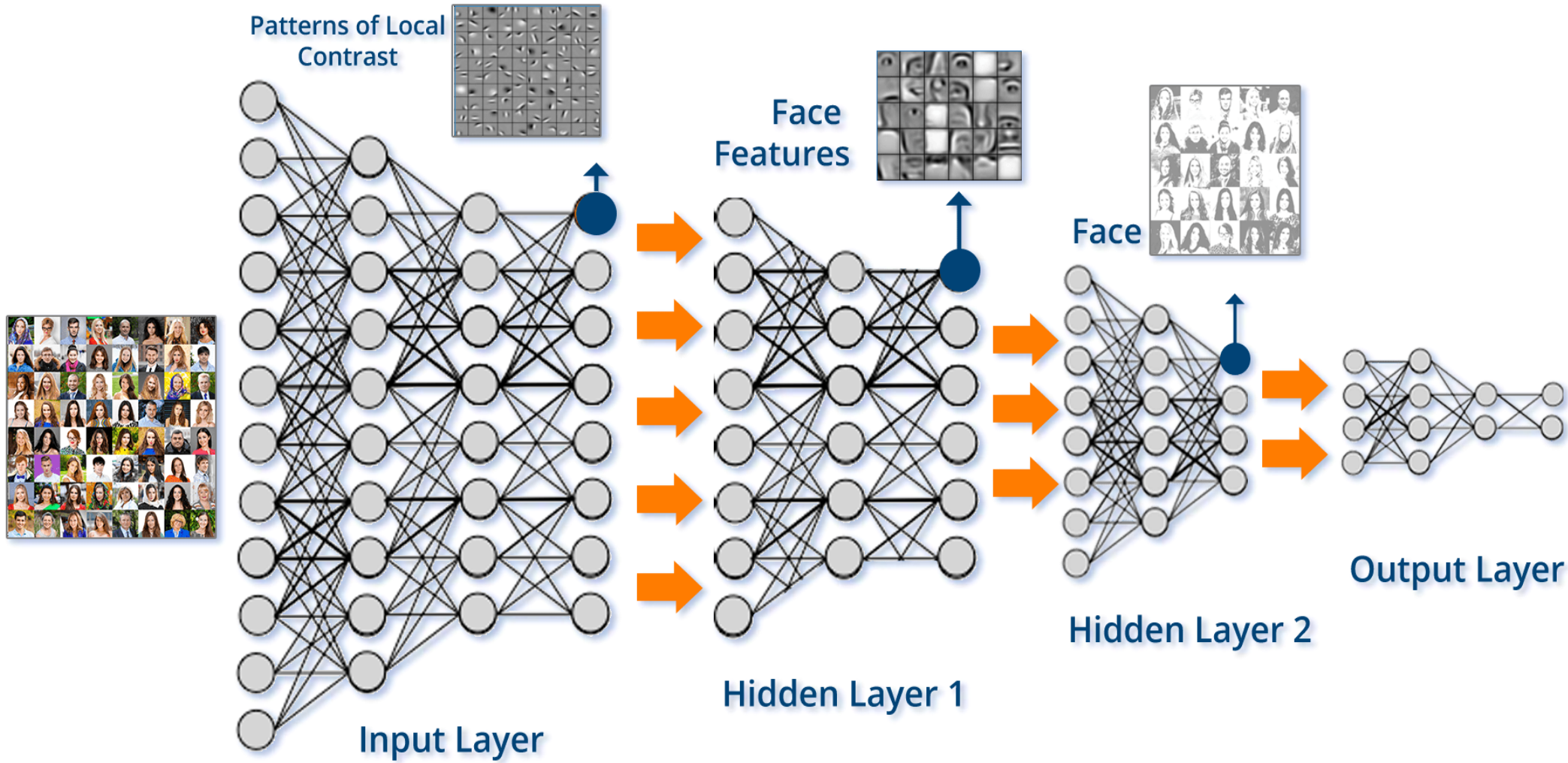
What we are used to think computer vision is.

Actual computer vision using convolutional neural networks.




Patterns of Local Contrast
Face Features
Face
Input Layer
Hidden Layer 1
Hidden Layer 2
Output Layer

BUSINESS ISSUE

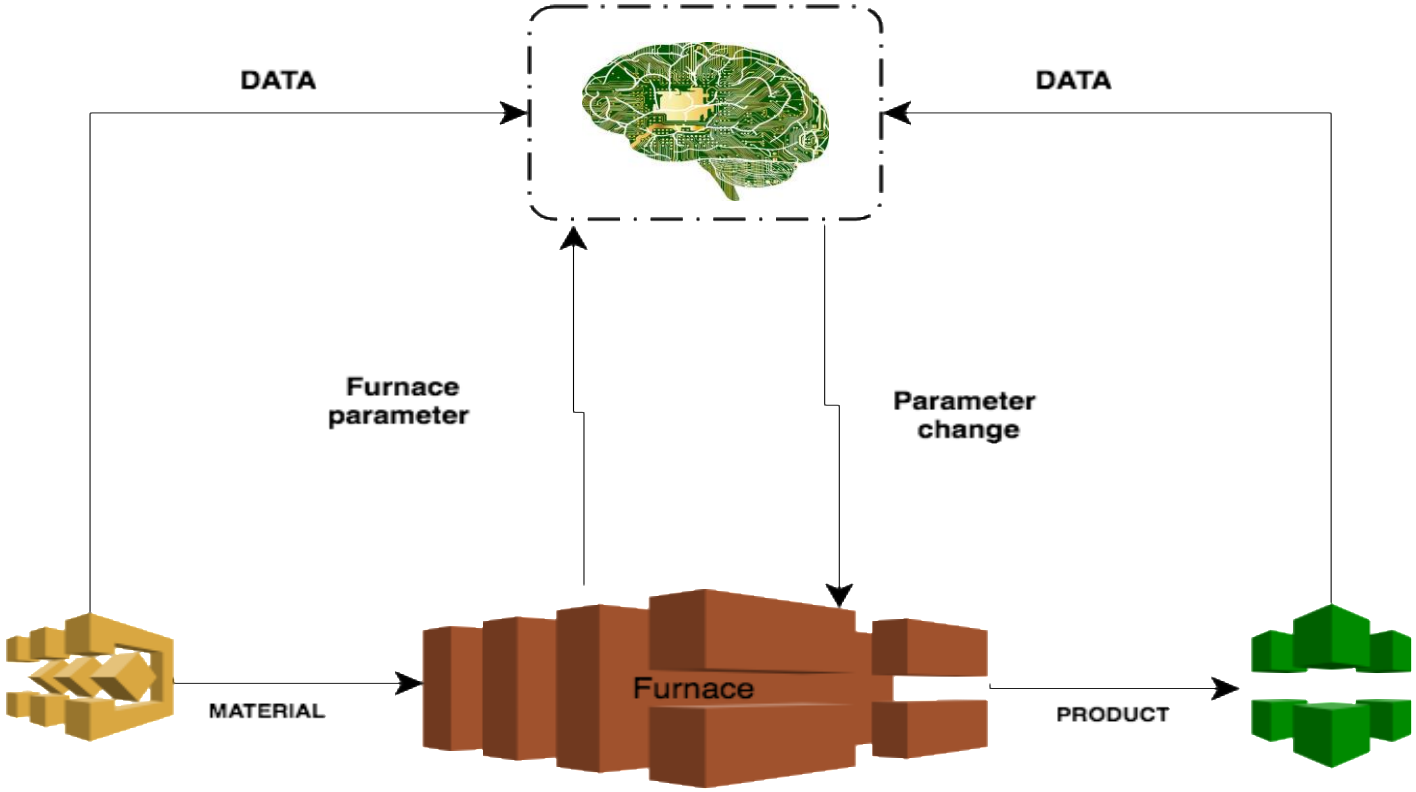
- The operator's educated guess can not be formalized and it poses a risk to the continuity of production
- Finding the best furnace parameter set take time and it affect production costs

Nordic Plast

Member of eco baltia group

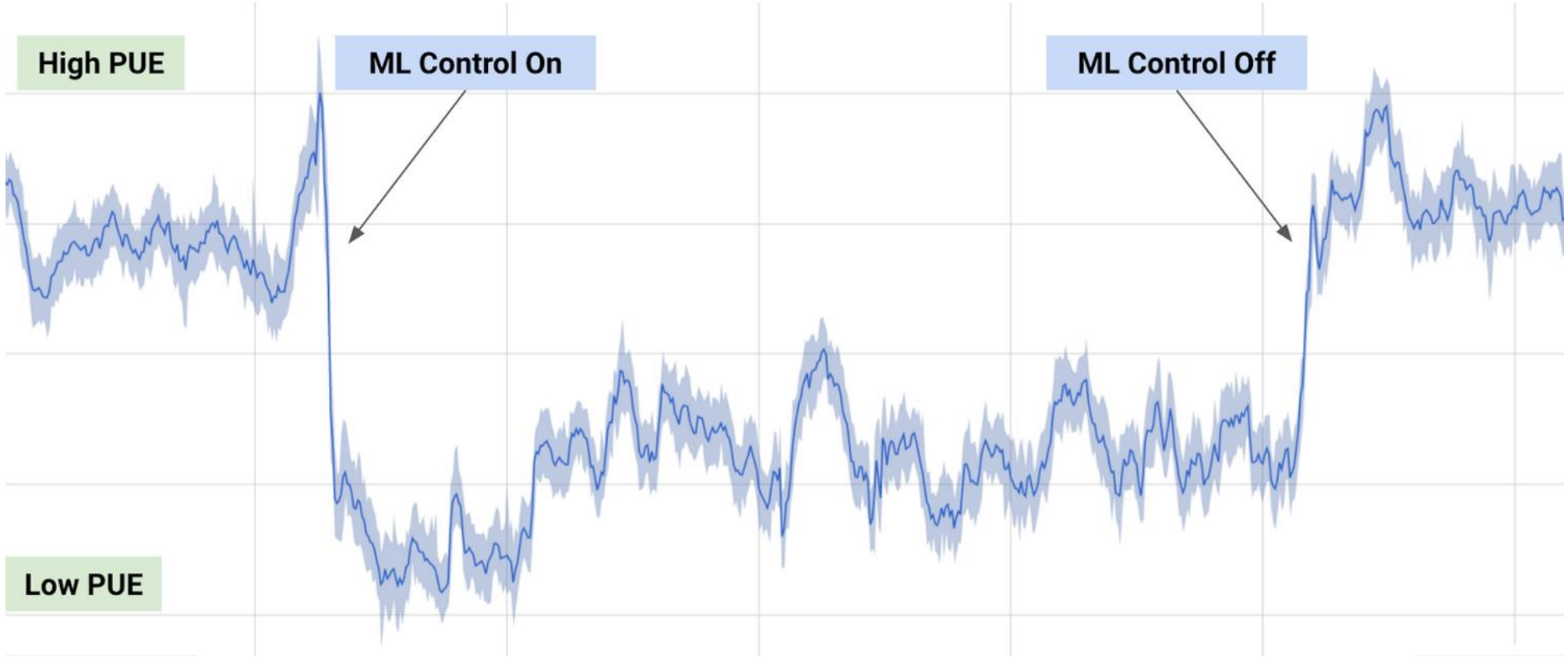
TASK

Achieve a dynamic and automatic calibration of the furnace



Google

Machine Learning (ML) Application for Data Center Optimization


High PUE
ML Control On
ML Control Off
Low PUE

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