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	[3]	2020.7-2022.6 10									
	[4]	2021.1-2023.12 20									
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	[1]	Haigang Zhang, et.al. Multi-label Classification Framework based on Extreme Learning Machine. International Journal of Machine Learning and Cybernetics, 2020.									
	[2]	Haigang Zhang et.al. Graph Fusion for Finger Multimodal Biometrics. IEEE Access. 2019.									
	[3]	Haigang Zhang. Robust Fault Diagnosis for Discrete-Time Switched System with Unknown State Delays Subject to Component Faults. Information Technology and Control. 2019.									
	[4]	Haigang Zhang, et.al. Kernel Online Sequential ELM Algorithm with Sliding Window Subject to Time-varying Environments, Memetic Computing, 2018.									
	[5]	Haigang Zhang, et.al. Prediction of the Hot Metal Silicon Content in Blast Furnace based on Extreme Learning Machine, International Journal of Machine Learning and Cybernetics 2018									

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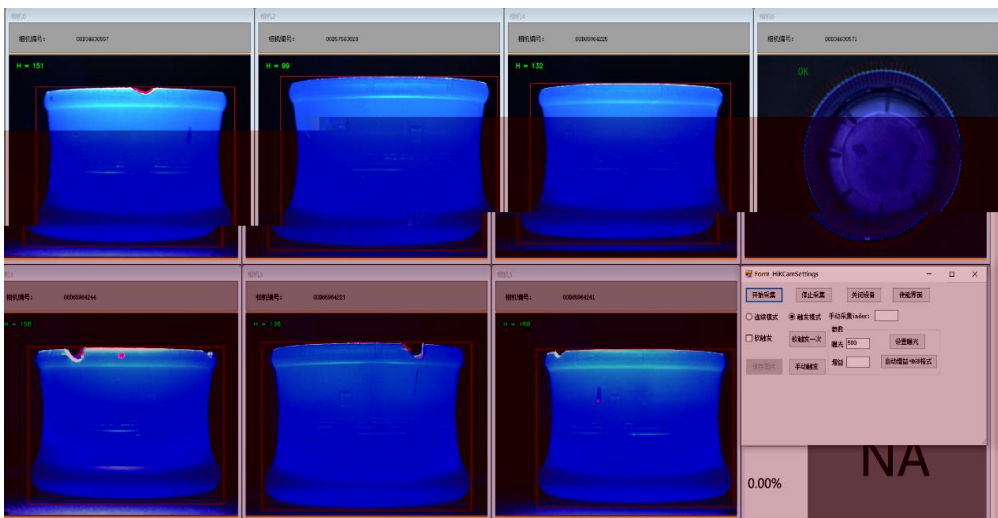
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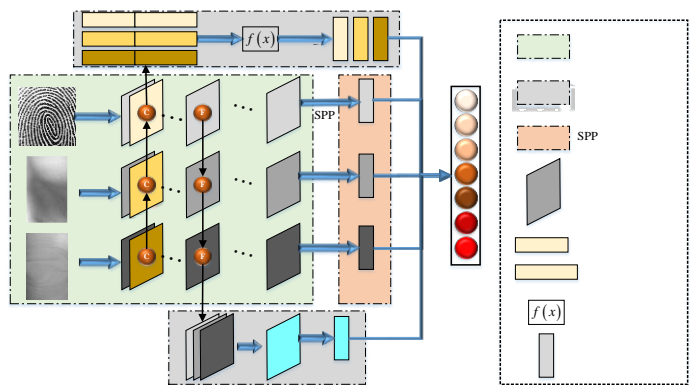
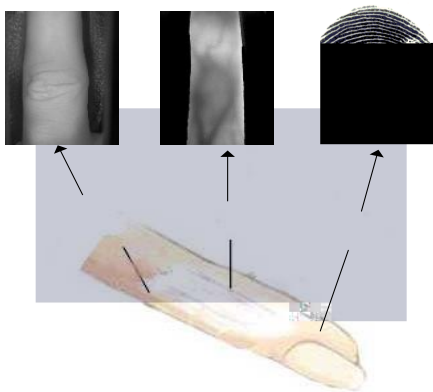
Biometrics

Fingerprint, FP

Finger Knuckle Print FKP

Finger Vein, FV

CNN GCN



3

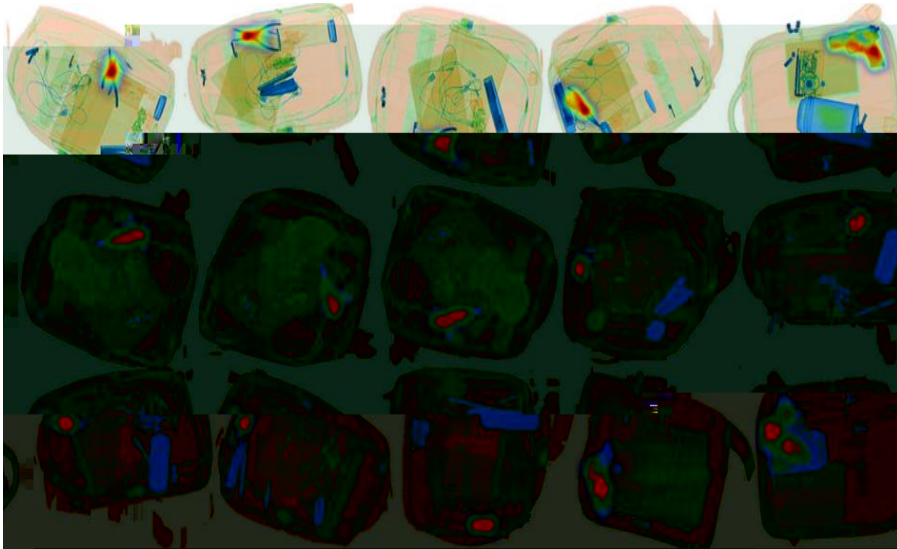
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2 python C++

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