Table 2: A comparison of related work on Energy Aware Cloud Edge Computing Continuum

Source	Type of Model	Continuum Coverage			Optimization Objectives				Technique	Energy Model	Application	Evaluation
		Edge	Fog	Cloud	Energy	Cost	Latency	Other				
2025 [19]	Workload prediction	✓	✗	✗	✓	✗	✗	✓	BiLSTM, CNN & Math Models	CPU utilization-based (cores)	Microservices	Real nodes & Azure data
2024 [20]	Monitoring stack	✗	✗	✓	✓	✗	✗	✓	Software counters (RAPL/IPMI)	CPU, DRAM, GPU & Network	HPC jobs & Bare-metal	Supercomputer (Jean-Zay)
2024 [21]	Simulation approach	✓	✗	✓	✓	✗	✓	✓	Enhanced iFogSim framework	Computation & NIC (Networking)	Video Surveillance	Simulation (iFogSim)
2023 [22]	Service scheduling	✓	✗	✓	✓	✗	✓	✓	Reinforcement Learning & Heuristics	Server, Link, & Migration	Delay-sensitive services	Simulation (CloudSim SDN)
2023 [23]	Task Scheduling	✗	✓	✓	✓	✗	✓	✓	CNN & Bidirectional GRU	Hardware & Cooling (PUE)	Heterogeneous AI tasks	Real environment (Azure VMs)
2022 [24]	Resource allocation	✓	✓	✗	✓	✓	✓	✓	Multiple Linear Regression	Predictive Model (from CPU)	Time-sensitive IoT	Simulation (CloudSim)
2022 [25]	Edge Server Mgmt	✓	✗	✗	✓	✗	✓	✓	Potential Game Theory	Switch & PM Running costs	Mobile Edge users	Simulation & Testbed
2021 [26]	DAG Application placement	✓	✓	✓	✓	✗	✓	✗	Distributed DRL (IMPALA)	IoT Device Only	IoT	Simulation & Testbed
2021 [27]	Application placement	✓	✗	✗	✓	✓	✗	✓	A* algorithm & Fuzzy Sets	CNs & Network devices	Microservice components	Simulation (CloudSim)
2019 [28]	offloading strategy	✓	✓	✓	✓	✗	✓	✓	Firefly Alg. & WSM	Computation & Tx Models	Intensive IoT	Simulation (2 datasets) & Stat. analysis
2019 [29]	Estimation model	✓	✓	✓	✓	✗	✗	✓	Piecewise linear taxonomy	PMs, Switches, & Cooling	Continuum architectures	Simulation analysis
2019 [30]	Data forwarding / Task splitting	✓	✓	✓	✓	✗	✓	✓	Primal barrier Newton method	State-based (Idle & Active)	Periodic Ubi-Comp (Classification)	Simulation & Prototype