Literature Review

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| No. | Title | Key Words | Comment |
| ~~1~~ | RESOURCE MANAGEMENT IN FOG COMPUTING BASED ON CLUSTERING | maintains **log records** of each user by monitoring their activities and **blocks** them if any **abnormal** activity is detected - authentication and bootstrap **attacks** - … | Not Selected – It’s specially for privacy and security issues |
| **2** | A Multi-Objective Task Scheduling Method for Fog Computsing in Cyber-Physical-Social Services | processing time, avoiding task violations, and reducing service costs - **genetic** algorithm - **execution** time and service **cost** | Selected |
| ~~3~~ | A Multi-Objective Task Scheduling Strategy for Intelligent Production Line Based on Cloud-Fog Computing | hybrid **heuristics** - task priority - hybrid monarch butterfly optimization - improved ant colony **optimization** - task **completion** rate and **power** consumption | Not Selected – Energy based |
| **4** | An Evolutionary Algorithm for Task scheduling Problem in the Cloud-Fog environment | **makespan** and operating **costs** | Selected |
| ~~5~~ | An efficient population-based multi-objective task scheduling approach in fog computing systems | **Meta heuristic** - Whale **optimization** algorithm – **Opposition based** learning - Chaos theory - task **offloading** requests and fog **resource** limitations - Integer **Linear Programming optimization** - **time** and fog **energy** | Not Selected |
| **6** | An Intelligent Chimp Optimizer for Scheduling of IoT Application Tasks in Fog Computin | **combines** the chimp **optimization** algorithm (ChOA) and the **marine predators algorithm** (MPA) - average **makespan** time improvements for peer scheduling algorithms and improved **throughput** performance | Selected |
| ~~7~~ | Joint QoS-aware and Cost-efficient Task Scheduling for Fog-Cloud Resources in a Volunteer Computing System | computation, communication, and delay violation cost | Not Selected |
| ~~8~~ | Cost-Aware Task Scheduling in Fog-Cloud Environment | bring resources closer to the user - **latency** and **energy** – **cost** aware genetic based | Not Selected |
| **9** | Dynamic Resource Allocation for Load Balancing in Fog Environment | DRAM - **load balancing** - static **resource allocation** and dynamic **service migration** | Selected |
| **10** | Effective Task Scheduling in Critical Fog Applications | classifies them as either **critical** or noncritical - reduce **latency**, **energy** consumption, and network utilization - healthcare scenarios - compared to (**FCFS**), (**SJF**), and **cloud only** approaches | Selected – it compared same algorithms as us (FCFS – SJF) |
| ~~11~~ | Energy Efficient Priority-Based Task Scheduling for Computation Offloading in Fog Computing | Prioritized Incremental **Energy** Rate - optimize network **energy** efficiency - necessity of offloading for IoT services | Not Selected – Focused on Energy |
| **12** | Fragmented Task Scheduling for Load-Balanced Fog Computing Based on Q-Learning | **RL** – privacy sensitive tasks - **load** and **performance** violation in **latency** and **security** | Selected |
| **13** | GOSH: Task Scheduling Using Deep Surrogate Models in Fog Computing Environments | **heterogeneous** fog environments - **Gradient** Based Optimization - **Heteroscedastic** Deep Surrogate Models - find an optimal trade off between greedy minimization of the mean **latency** and uncertainty reduction by employing error-based exploration - **energy** consumption, response **time**, and SLA **violations** | Selected |
| **14** | Latency-Aware Task Scheduling for IoT Applications Based on Artificial Intelligence with Partitioning in Small-Scale Fog Computing Environments | reduce scheduling **times** and service level **objectives** while introducing negligible **energy** consumption - artificial **neural networks** with **partitioning** capabilities - calculate **hyperparameters** in **parallel** | Selected |
| **15** | Multi-objective Task Scheduling Approach for Fog Computing | **integrating** the **marine predator's** algorithm with the polynomial mutation mechanism (MHMPA) - **makespan** and the carbon **emission ratio** based on the Pareto optimality | Selected |
| **16** | Online Task Scheduling for Fog Computing with Multi-Resource Fairness | deep reinforcement learning (**DRL**) | Selected – Because it uses RL, too |
| ~~17~~ | qCon: QoS-Aware Network Resource Management for Fog Computing | network **bandwidth** – **QoS** aware network **resource** management | (Perhaps) Not Selected |
| **18** | Resource Allocation for Efficient IOT Application in Fog Computing | automatic **resource** allocation – **QoS** - comparison of the previous works with **RECK** algorithm | Selected |
| **19** | Task Scheduling Algorithm Based on Improved Firework Algorithm in Fog Computing | improved **firework** algorithm - **processing** time - overall **load balancing** of fog devices | Selected |
| **20** | Task Scheduling Based on a Hybrid Heuristic Algorithm for Smart Production Line with Fog Computing | hybrid **heuristic** - **heterogeneous** task requests - **delay** and **energy** consumption, and improve **performance** metrics | Selected |
| **21** | Optimal Resource Allocation in Fog Computing for Healthcare Applications | **resource** allocation – healthcare - maximum **load balancing** - 45% decrease in **delay**, 37% reduction in **energy** consumption, and 25% decrease in network **bandwidth** consumption | Selected |