

## Data



Tasks



Workers




Upcoming  
idle workers

## Task Recommendation

spatiotemporal  
distribution

Valid Task Set  
Generation

Multi-Stage Probabilistic  
Recommendation Algorithm

Dynamic  adjustment

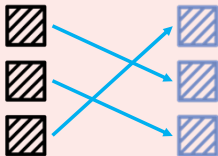
Supply-Demand Flow  
Balancing Algorithm

Supply-Demand Analysis

Flow Graph Generation

Maximum Flow  
Computation

Supply-Demand Transfer Graph



Supply >  
Demand

Supply <  
Demand

Recommendation  
results

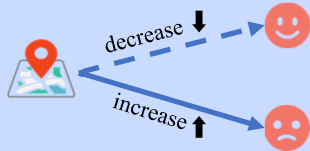
## Task Assignment



Worker  
Selection

Selected  
task set

Fairness-aware Algorithm



Assignment results