

House A

| | | Precision | Recall | F-Measure | Accuracy |
|-------|---------|-----------|--------|-----------|----------|
| Model | Feature | | | | |
| HMM | Change | 30.3 | 34.4 | 31.4 | 87.3 |
| | Raw | 30.0 | 12.6 | 11.5 | 56.1 |
| | Last | 22.0 | 21.4 | 18.7 | 72.6 |
| SVM | Change | 34.7 | 11.4 | 9.5 | 53.1 |
| | Raw | 33.2 | 17.0 | 17.4 | 60.6 |
| | Last | 26.7 | 27.9 | 27.3 | 93.7 |
| SSVM | Change | 13.9 | 10.3 | 7.5 | 53.1 |
| | Raw | 23.0 | 15.2 | 15.3 | 61.3 |
| | Last | 30.3 | 29.2 | 28.9 | 93.7 |
| CRF | Change | 3.1 | 10.0 | 4.8 | 31.3 |
| | Raw | 17.9 | 15.7 | 14.9 | 62.1 |
| | Last | 19.4 | 19.3 | 14.5 | 65.9 |
| HMM | Change | 36.9 | 35.2 | 31.8 | 71.2 |
| | Raw | 30.8 | 13.8 | 12.9 | 59.7 |
| | Last | 21.8 | 19.3 | 15.2 | 66.0 |
| NB | Change | 38.1 | 11.6 | 9.9 | 53.2 |
| | Raw | 52.7 | 17.3 | 17.0 | 63.1 |
| | Last | 28.3 | 28.2 | 27.7 | 94.4 |

House C

| Model | Feature | Precision | Recall | F-Measure | Accuracy |
|-------|---------|-----------|--------|-----------|----------|
| HMM | Change | 20.2 | 20.2 | 19.0 | 73.4 |
| | Raw | 8.0 | 5.8 | 4.0 | 46.3 |
| | Last | 24.1 | 25.4 | 23.4 | 80.9 |
| SVM | Change | 19.3 | 6.4 | 5.0 | 46.6 |
| | Raw | 9.2 | 7.2 | 7.2 | 44.5 |
| | Last | 25.5 | 27.9 | 25.7 | 80.9 |
| SSVM | Change | 12.6 | 6.8 | 5.6 | 50.5 |
| | Raw | 20.8 | 13.3 | 14.0 | 55.8 |
| | Last | 24.7 | 22.3 | 20.8 | 78.5 |
| CRF | Change | 8.1 | 6.1 | 4.5 | 48.0 |
| | Raw | 11.5 | 10.6 | 10.4 | 53.5 |
| | Last | 12.8 | 15.3 | 13.3 | 78.2 |
| HMM | Change | 24.3 | 18.3 | 18.5 | 79.1 |
| | Raw | 3.0 | 5.9 | 3.9 | 48.9 |
| | Last | 27.3 | 28.3 | 26.1 | 78.3 |
| NB | Change | 25.5 | 6.5 | 5.2 | 46.7 |
| | Raw | 28.3 | 17.0 | 16.1 | 53.3 |
| | Last | 32.4 | 28.1 | 26.5 | 81.5 |

House B

| Model | Feature | Precision | Recall | F-Measure | Accuracy |
|-------|---------|-----------|--------|-----------|----------|
| HMM | Change | 16.9 | 17.1 | 16.4 | 77.9 |
| | Raw | 5.9 | 3.2 | 2.7 | 47.2 |
| | Last | 17.8 | 15.0 | 15.0 | 81.9 |
| SVM | Change | 16.5 | 4.9 | 4.7 | 59.8 |
| | Raw | 10.9 | 9.7 | 8.3 | 58.4 |
| | Last | 17.3 | 15.1 | 15.0 | 81.9 |
| SSVM | Change | 15.3 | 5.0 | 4.8 | 60.4 |
| | Raw | 33.5 | 17.4 | 20.9 | 91.2 |
| | Last | 26.5 | 20.6 | 18.9 | 85.5 |
| CRF | Change | 2.3 | 3.8 | 2.9 | 59.3 |
| | Raw | 7.5 | 7.9 | 7.7 | 86.8 |
| | Last | 7.5 | 7.7 | 7.5 | 84.4 |
| HMM | Change | 15.9 | 17.9 | 16.8 | 80.7 |
| | Raw | 8.9 | 4.9 | 4.5 | 62.3 |
| | Last | 13.0 | 15.9 | 13.3 | 81.3 |
| NB | Change | 23.9 | 5.2 | 5.2 | 60.1 |
| | Raw | 42.8 | 33.6 | 28.8 | 88.5 |
| | Last | 29.9 | 18.5 | 18.5 | 87.8 |

House A Model HMM Feature Change

| | idle | leave house | use toilet | take shower | brush teeth | go to bed | prepare Breakfast | prepare Dinner | get snack | get drink |
|-------------------|------|-------------|------------|-------------|-------------|-----------|-------------------|----------------|-----------|-----------|
| idle | 54.1 | 13.1 | 3.4 | 0.0 | 0.0 | 9.6 | 0.1 | 19.6 | 0.0 | 0.0 |
| leave house | 1.9 | 98.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet | 20.8 | 1.4 | 69.2 | 0.0 | 0.0 | 5.9 | 0.0 | 2.8 | 0.0 | 0.0 |
| take shower | 87.9 | 11.3 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 |
| brush teeth | 46.4 | 11.6 | 31.7 | 0.0 | 0.0 | 10.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 10.2 | 2.0 | 0.0 | 0.0 | 0.0 | 87.3 | 0.0 | 0.4 | 0.0 | 0.0 |
| prepare Breakfast | 44.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.1 | 48.8 | 0.0 | 0.0 |
| prepare Dinner | 46.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 25.9 | 28.0 | 0.0 | 0.0 |
| get snack | 42.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 13.8 | 43.2 | 0.0 | 0.0 |
| get drink | 66.4 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 | 28.8 | 0.0 | 0.0 |

House A Model HMM Feature Raw

| | idle | leave house | use toilet | take shower | brush teeth | go to bed | prepare Breakfast | prepare Dinner | get snack | get drink |
|-------------------|------|-------------|------------|-------------|-------------|-----------|-------------------|----------------|-----------|-----------|
| idle | 12.9 | 78.4 | 0.0 | 0.0 | 0.0 | 5.5 | 0.1 | 3.1 | 0.0 | 0.0 |
| leave house | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet | 12.3 | 81.8 | 2.0 | 0.0 | 0.0 | 1.8 | 0.0 | 2.1 | 0.0 | 0.0 |
| take shower | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| brush teeth | 5.9 | 94.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 3.6 | 88.4 | 0.0 | 0.0 | 0.0 | 4.1 | 0.0 | 3.9 | 0.0 | 0.0 |
| prepare Breakfast | 31.9 | 41.9 | 0.0 | 0.0 | 0.0 | 9.1 | 0.5 | 15.7 | 0.0 | 0.9 |
| prepare Dinner | 39.0 | 41.6 | 0.0 | 0.0 | 0.0 | 15.0 | 2.4 | 1.9 | 0.0 | 0.2 |
| get snack | 9.0 | 42.0 | 0.0 | 0.0 | 0.0 | 16.5 | 0.6 | 31.9 | 0.0 | 0.0 |
| get drink | 22.1 | 71.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 2.1 | 0.0 | 4.2 |

House A Model HMM Feature Last

| | idle | leave house | use toilet | take shower | brush teeth | go to bed | prepare Breakfast | prepare Dinner | get snack | get drink |
|-------------------|-------|-------------|------------|-------------|-------------|-----------|-------------------|----------------|-----------|-----------|
| idle | 90.1 | 7.0 | 0.0 | 0.0 | 0.0 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| leave house | 0.1 | 99.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet | 83.4 | 0.8 | 0.0 | 0.0 | 0.0 | 15.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| take shower | 99.9 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| brush teeth | 84.1 | 10.7 | 0.0 | 0.0 | 0.0 | 5.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 44.3 | 31.4 | 0.0 | 0.0 | 0.0 | 24.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 99.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Dinner | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get snack | 98.8 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get drink | 97.3 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

House B Model HMM Feature Change

House B Model HMM Feature Raw

| | idle | Leaving the house | Use toilet | Take shower | Brush teeth | Shaving | Go to bed | Get dressed | Prepare brunch | Prepare dinner | Unknown | Get a drink | Wash dishes | Answering phone | Eat dinner | Eat brunch | Setting up sensors | Unpacking | Install sensor | On phone | Fasten kitchen camera | Wash toaster | Play piano | Gwenn searches keys | Prepare for leaving | Drop dish (No dishwasher) |
|---------------------------|------|-------------------|------------|-------------|-------------|---------|-----------|-------------|----------------|----------------|---------|-------------|-------------|-----------------|------------|------------|--------------------|-----------|----------------|----------|-----------------------|--------------|------------|---------------------|---------------------|---------------------------|
| idle | 1.4 | 98.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Leaving the house | 22.2 | 77.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Use toilet | 4.4 | 95.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Take shower | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Brush teeth | 1.3 | 98.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Shaving | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Go to bed | 1.4 | 95.1 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Get dressed | 0.0 | 98.3 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prepare brunch | 8.4 | 91.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prepare dinner | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Unknown | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Get a drink | 3.5 | 96.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wash dishes | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Answering phone | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eat dinner | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eat brunch | 15.9 | 84.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Setting up sensors | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Unpacking | 0.0 | 99.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Install sensor | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| On phone | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fasten kitchen camera | 13.1 | 86.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wash toaster | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Play piano | 15.2 | 84.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gwenn searches keys | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prepare for leaving | 2.9 | 97.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Drop dish (No dishwasher) | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

House B Model HMM Feature Last

| | idle | Leaving the house | Use toilet | Take shower | Brush teeth | Shaving | Go to bed | Get dressed | Prepare brunch | Prepare dinner | Unknown | Get a drink | Wash dishes | Answering phone | Eat dinner | Eat brunch | Setting up sensors | Unpacking | Install sensor | On phone | Fasten kitchen camera | Wash toaster | Play piano | Gwen searches keys | Prepare for leaving | Drop dish (No dishwasher) |
|---------------------------|------|-------------------|------------|-------------|-------------|---------|-----------|-------------|----------------|----------------|---------|-------------|-------------|-----------------|------------|------------|--------------------|-----------|----------------|----------|-----------------------|--------------|------------|--------------------|---------------------|---------------------------|
| idle | 22.7 | 48.9 | 1.4 | 0.6 | 0.0 | 0.0 | 11.2 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 14.3 | 0.0 | 0.0 | 0.0 |
| Leaving the house | 2.4 | 90.2 | 0.0 | 5.2 | 0.0 | 0.0 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Use toilet | 37.8 | 25.7 | 19.4 | 9.1 | 0.0 | 0.0 | 6.3 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 |
| Take shower | 1.1 | 90.1 | 0.6 | 5.1 | 0.0 | 0.0 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 |
| Brush teeth | 19.3 | 69.1 | 0.3 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.5 | 0.0 | 0.0 | 0.0 |
| Shaving | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Go to bed | 0.8 | 14.2 | 0.0 | 0.0 | 0.0 | 0.0 | 84.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Get dressed | 13.8 | 12.1 | 1.2 | 0.1 | 0.0 | 0.0 | 67.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.3 | 0.0 | 0.0 | 0.0 |
| Prepare brunch | 11.9 | 48.4 | 0.0 | 0.0 | 0.0 | 0.0 | 4.3 | 0.0 | 6.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 13.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.7 | 0.0 | 0.0 | 0.0 |
| Prepare dinner | 13.0 | 75.2 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 3.0 | 0.0 | 0.0 | 2.9 | 0.0 | 0.6 | 1.8 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Unknown | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Get a drink | 17.1 | 56.3 | 0.0 | 0.0 | 0.0 | 0.0 | 5.6 | 0.0 | 2.7 | 0.0 | 0.0 | 0.0 | 43.6 | 0.0 | 14.7 | 3.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wash dishes | 7.5 | 27.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 9.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.1 | 0.0 | 0.0 | 0.0 |
| Answering phone | 0.0 | 95.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.4 | 0.0 | 0.0 | 0.0 |
| Eat dinner | 5.6 | 12.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 32.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 31.6 | 0.0 | 0.0 | 0.0 |
| Eat brunch | 0.3 | 70.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15.9 | 0.0 | 0.0 | 0.0 |
| Setting up sensors | 47.0 | 20.1 | 6.4 | 0.0 | 0.0 | 0.0 | 11.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.8 | 0.0 | 0.0 | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.3 | 0.0 | 0.0 | 0.0 |
| Unpacking | 18.4 | 71.5 | 0.4 | 0.0 | 0.0 | 0.0 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Install sensor | 41.3 | 45.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| On phone | 35.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 64.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fasten kitchen camera | 0.6 | 99.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wash toaster | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Play piano | 0.2 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 96.5 | 0.0 | 0.0 | 0.0 |
| Gwen searches keys | 2.2 | 93.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prepare for leaving | 18.9 | 33.4 | 0.0 | 0.0 | 0.0 | 0.0 | 18.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 28.6 | 0.0 | 0.0 | 0.0 |
| Drop dish (No dishwasher) | 10.8 | 72.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.2 | 0.0 | 0.0 | 0.0 |

House C Model HMM Feature Change

[illegible]

House C Model HMM Feature Last

| | idle | leave house | use toilet | take shower | brush teeth | go to bed | prepare Breakfast | prepare Dinner | get snack | get drink |
|-------------------|------|-------------|------------|-------------|-------------|-----------|-------------------|----------------|-----------|-----------|
| idle | 0.0 | 99.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| leave house | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet | 0.0 | 94.1 | 5.2 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| take shower | 0.0 | 99.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| brush teeth | 0.0 | 97.4 | 0.8 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 0.1 | 93.3 | 0.0 | 0.1 | 0.0 | 0.0 | 3.5 | 1.9 | 0.5 | 0.7 |
| prepare Dinner | 0.2 | 98.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.2 | 0.0 | 0.1 |
| get snack | 0.1 | 93.8 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 | 1.5 | 0.6 | 0.0 |
| get drink | 1.1 | 89.9 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 4.2 | 0.0 | 3.0 |

House A Model SVM Feature Raw

| | idle | leave house | use toilet | take shower | brush teeth | go to bed | prepare Breakfast | prepare Dinner | get snack | get drink |
|-------------------|------|-------------|------------|-------------|-------------|-----------|-------------------|----------------|-----------|-----------|
| idle | 7.4 | 28.6 | 0.0 | 0.0 | 0.0 | 61.7 | 0.1 | 2.2 | 0.0 | 0.0 |
| leave house | 0.0 | 66.5 | 0.0 | 0.0 | 0.0 | 33.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet | 3.3 | 15.7 | 2.1 | 0.0 | 0.0 | 76.4 | 0.2 | 2.2 | 0.0 | 0.0 |
| take shower | 0.0 | 19.5 | 0.0 | 0.0 | 0.0 | 80.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| brush teeth | 5.8 | 74.7 | 0.1 | 0.0 | 0.0 | 19.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 3.6 | 14.9 | 0.0 | 0.0 | 0.0 | 77.6 | 0.0 | 3.9 | 0.0 | 0.0 |
| prepare Breakfast | 6.3 | 15.5 | 0.0 | 0.0 | 0.0 | 64.7 | 4.7 | 7.4 | 0.0 | 1.4 |
| prepare Dinner | 2.4 | 12.2 | 0.0 | 0.0 | 0.0 | 83.3 | 1.3 | 0.4 | 0.0 | 0.3 |
| get snack | 0.0 | 12.5 | 0.0 | 0.0 | 0.0 | 60.4 | 4.0 | 22.5 | 0.0 | 0.6 |
| get drink | 2.7 | 9.5 | 0.0 | 0.0 | 0.0 | 59.8 | 3.3 | 13.1 | 0.0 | 11.6 |

House A Model SVM Feature Last

| | idle | leave house | use toilet | take shower | brush teeth | go to bed | prepare Breakfast | prepare Dinner | get snack | get drink |
|-------------------|-------|-------------|------------|-------------|-------------|-----------|-------------------|----------------|-----------|-----------|
| idle | 86.3 | 6.7 | 0.0 | 0.0 | 0.0 | 7.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| leave house | 0.1 | 99.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet | 79.4 | 0.5 | 0.0 | 0.0 | 0.0 | 20.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| take shower | 99.9 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| brush teeth | 84.1 | 6.2 | 0.0 | 0.0 | 0.0 | 9.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 6.8 | 0.0 | 0.0 | 0.0 | 0.0 | 93.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 98.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Dinner | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get snack | 98.2 | 1.2 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| get drink | 97.3 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

House B Model SVM Feature Change

House B Model SVM Feature Raw

| | idle | Leaving the house | Use toilet | Take shower | Brush teeth | Shaving | Go to bed | Get dressed | Prepare brunch | Prepare dinner | Unknown | Get a drink | Wash dishes | Answering phone | Eat dinner | Eat brunch | Setting up sensors | Unpacking | Install sensor | On phone | Fasten kitchen camera | Wash toaster | Play piano | Gwen searches keys | Prepare for leaving | Drop dish (No dishwash) |
|-------------------------|------|-------------------|------------|-------------|-------------|---------|-----------|-------------|----------------|----------------|---------|-------------|-------------|-----------------|------------|------------|--------------------|-----------|----------------|----------|-----------------------|--------------|------------|--------------------|---------------------|-------------------------|
| idle | 2.6 | 42.6 | 1.8 | 2.0 | 0.0 | 0.0 | 18.8 | 0.0 | 6.7 | 4.1 | 0.0 | 0.0 | 20.5 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.4 | 0.0 |
| Leaving the house | 0.0 | 58.2 | 4.8 | 21.1 | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 | 10.6 | 0.0 | 0.0 | 2.3 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 | 0.0 |
| Use toilet | 2.8 | 65.3 | 0.0 | 1.2 | 0.0 | 0.0 | 10.0 | 0.0 | 7.5 | 6.8 | 0.0 | 0.0 | 8.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 3.9 | 0.0 |
| Take shower | 4.3 | 55.0 | 0.0 | 21.2 | 0.0 | 0.0 | 0.0 | 0.0 | 9.7 | 1.4 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.4 | 0.0 |
| Brush teeth | 0.4 | 66.1 | 3.1 | 4.9 | 0.0 | 0.0 | 0.0 | 0.0 | 8.4 | 7.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Shaving | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Go to bed | 4.7 | 1.3 | 0.0 | 4.1 | 0.0 | 0.0 | 77.5 | 0.3 | 0.0 | 0.4 | 0.0 | 0.0 | 11.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Get dressed | 0.1 | 18.4 | 0.0 | 0.7 | 0.0 | 0.0 | 50.1 | 0.0 | 2.2 | 0.4 | 0.0 | 0.0 | 22.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 1.8 | 0.0 | 0.0 | 0.0 | 6.1 | 0.0 | 0.0 | 0.0 |
| Prepare brunch | 0.9 | 48.3 | 0.0 | 0.9 | 0.0 | 0.0 | 22.9 | 0.0 | 10.4 | 9.6 | 0.0 | 0.0 | 4.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prepare dinner | 0.7 | 36.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.4 | 48.2 | 0.0 | 0.0 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Unknown | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Get a drink | 9.3 | 55.5 | 0.0 | 0.0 | 0.0 | 3.5 | 5.6 | 0.0 | 5.1 | 17.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wash dishes | 4.6 | 57.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 33.6 | 0.0 | 0.0 | 2.3 | 0.0 | 0.0 | 1.6 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Answering phone | 0.0 | 98.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eat dinner | 0.0 | 70.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 29.8 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eat brunch | 0.0 | 37.2 | 0.0 | 26.8 | 0.0 | 0.0 | 16.1 | 0.0 | 16.0 | 0.0 | 0.0 | 0.0 | 3.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Setting up sensors | 2.6 | 14.0 | 0.0 | 39.5 | 0.0 | 0.0 | 28.4 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Unpacking | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 99.6 | 0.0 | 75.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Install sensor | 0.0 | 15.8 | 0.0 | 0.0 | 0.0 | 0.0 | 8.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| On phone | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fasten kitchen camera | 1.4 | 20.3 | 0.0 | 18.3 | 0.0 | 0.0 | 28.4 | 0.0 | 0.0 | 31.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wash toaster | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Play piano | 0.0 | 19.8 | 0.0 | 3.7 | 0.0 | 0.0 | 4.5 | 0.0 | 1.7 | 12.7 | 0.0 | 0.0 | 15.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.1 | 0.0 |
| Gwen searches keys | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 99.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prepare for leaving | 1.9 | 69.0 | 0.0 | 5.2 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 12.2 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.2 | 0.0 | 2.9 | 0.0 |
| Drop dish (No dishwash) | 0.0 | 49.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 34.4 | 0.0 | 0.0 | 14.0 | 0.0 | 0.0 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

House B Model SVM Feature Last

| | idle | Leaving the house | Use toilet | Take shower | Brush teeth | Shaving | Go to bed | Get dressed | Prepare brunch | Prepare dinner | Unknown | Get a drink | Wash dishes | Answering phone | Eat dinner | Eat brunch | Setting up sensors | Unpacking | Install sensor | On phone | Fasten kitchen camera | Wash toaster | Play piano | Gwen searches keys | Prepare for leaving | Drop dish (No dishwash) |
|-------------------------|------|-------------------|------------|-------------|-------------|---------|-----------|-------------|----------------|----------------|---------|-------------|-------------|-----------------|------------|------------|--------------------|-----------|----------------|----------|-----------------------|--------------|------------|--------------------|---------------------|-------------------------|
| idle | 22.2 | 48.9 | 1.7 | 0.6 | 0.0 | 0.0 | 11.4 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 14.3 | 0.0 | 0.0 | 0.0 |
| Leaving the house | 23 | 90.2 | 0.0 | 5.2 | 0.0 | 0.0 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Use toilet | 36.7 | 24.5 | 21.6 | 9.2 | 0.0 | 0.0 | 6.3 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 |
| Take shower | 0.9 | 89.5 | 1.2 | 5.2 | 0.0 | 0.0 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 |
| Brush teeth | 14.2 | 88.4 | 3.4 | 0.7 | 0.0 | 0.0 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.5 | 0.0 | 0.0 | 0.0 |
| Shaving | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Go to bed | 0.8 | 14.3 | 0.0 | 0.0 | 0.0 | 0.0 | 84.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Get dressed | 8.9 | 12.9 | 2.4 | 0.1 | 0.0 | 0.0 | 70.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prepare brunch | 8.5 | 49.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.2 | 0.0 | 7.3 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 14.9 | 9.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prepare dinner | 10.8 | 75.2 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 3.4 | 0.0 | 0.0 | 2.9 | 0.0 | 1.3 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Unknown | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Get a drink | 5.3 | 58.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 18.7 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wash dishes | 5.5 | 28.6 | 0.0 | 0.0 | 0.0 | 0.0 | 5.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Answering phone | 0.0 | 95.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.8 | 4.5 | 0.0 | 0.0 | 44.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eat dinner | 5.5 | 12.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eat brunch | 0.0 | 70.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 32.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Setting up sensors | 30.9 | 35.4 | 6.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Unpacking | 17.7 | 71.8 | 0.8 | 0.0 | 0.0 | 0.0 | 3.3 | 0.0 | 8.3 | 0.0 | 0.0 | 0.0 | 5.3 | 0.0 | 0.3 | 6.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Install sensor | 41.3 | 45.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| On phone | 35.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fasten kitchen camera | 0.0 | 99.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wash toaster | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Play piano | 0.1 | 3.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gwen searches keys | 0.7 | 93.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prepare for leaving | 19.4 | 33.1 | 0.0 | 0.0 | 0.0 | 0.0 | 18.2 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Drop dish (No dishwash) | 12.9 | 69.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.2 | 0.0 | 0.0 | 0.0 |

House C Model SVM Feature Change

| | idle | leave house | Eating | use toilet downstairs | use toilet upstairs | brush teeth | take shower | go to bed | get dressed | take medication | prepare Breakfast | prepare Lunch | prepare Dinner | get snack | get drink | put clothes in washingmachine | relax |
|-------------------------------|------|-------------|--------|-----------------------|---------------------|-------------|-------------|-----------|-------------|-----------------|-------------------|---------------|----------------|-----------|-----------|-------------------------------|-------|
| idle | 0.6 | 99.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| leave house | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eating | 0.9 | 98.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet downstairs | 2.4 | 97.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| take shower | 0.5 | 92.6 | 0.0 | 0.0 | 0.0 | 0.0 | 6.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| brush teeth | 3.7 | 92.7 | 0.0 | 0.0 | 0.0 | 0.1 | 3.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet upstairs | 3.6 | 94.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| shave | 2.5 | 93.6 | 0.0 | 0.0 | 0.0 | 0.6 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 0.0 | 95.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get dressed | 1.4 | 95.3 | 0.0 | 0.0 | 0.0 | 0.0 | 2.7 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| take medication | 1.8 | 96.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 1.2 | 95.9 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Lunch | 1.2 | 96.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Dinner | 0.5 | 97.3 | 0.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| get snack | 1.4 | 95.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get drink | 0.3 | 96.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| put clothes in washingmachine | 0.2 | 99.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| relax | 0.3 | 99.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

House C Model SVM Feature Raw

| | idle | leave house | Eating | use toilet downstairs | take shower | brush teeth | use toilet upstairs | shave | go to bed | get dressed | take medication | prepare Breakfast | prepare Lunch | prepare Dinner | get snack | get drink | put clothes in washingmachine | relax |
|-------------------------------|------|-------------|--------|-----------------------|-------------|-------------|---------------------|-------|-----------|-------------|-----------------|-------------------|---------------|----------------|-----------|-----------|-------------------------------|-------|
| idle | 0.9 | 70.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 25.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 |
| leave house | 0.0 | 67.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 32.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eating | 0.0 | 69.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet downstairs | 4.7 | 43.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 46.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 12.6 |
| take shower | 0.2 | 45.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 42.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.2 |
| brush teeth | 0.9 | 66.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 29.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.7 |
| use toilet upstairs | 2.7 | 62.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 32.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 |
| shave | 0.5 | 67.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 31.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 |
| go to bed | 4.5 | 54.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 41.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 |
| get dressed | 2.4 | 45.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 48.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| take medication | 6.2 | 93.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.8 |
| prepare Breakfast | 0.7 | 86.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 29.0 | 0.0 | 0.0 | 0.1 | 0.0 | 1.7 | 0.0 | 0.0 | 0.0 | 0.2 |
| prepare Lunch | 4.1 | 68.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.4 | 0.0 | 0.0 | 5.4 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 | 4.7 |
| prepare Dinner | 0.0 | 58.8 | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 19.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.8 |
| get snack | 8.6 | 68.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 32.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.9 | 0.0 | 0.0 | 0.0 | 6.7 |
| get drink | 1.3 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 18.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 4.1 |
| put clothes in washingmachine | 0.1 | 40.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 98.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| relax | 0.1 | 40.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 38.1 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 20.1 |

House C Model SVM Feature Last

| | idle | leave house | Eating | use toilet downstairs | take shower | brush teeth | use toilet upstairs | shave | go to bed | get dressed | take medication | prepare Breakfast | prepare Lunch | prepare Dinner | get snack | get drink | put clothes in washingmachine | relax |
|-------------------------------|------|-------------|--------|-----------------------|-------------|-------------|---------------------|-------|-----------|-------------|-----------------|-------------------|---------------|----------------|-----------|-----------|-------------------------------|-------|
| idle | 31.1 | 8.2 | 0.0 | 0.0 | 1.8 | 0.0 | 0.0 | 0.7 | 0.4 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 51.9 |
| leave house | 0.7 | 86.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.1 |
| Eating | 13.9 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 77.9 |
| use toilet downstairs | 69.0 | 11.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 18.7 |
| take shower | 30.0 | 0.0 | 0.0 | 0.0 | 63.0 | 0.0 | 0.0 | 0.2 | 3.5 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.2 |
| brush teeth | 33.4 | 0.6 | 0.0 | 0.0 | 25.0 | 0.0 | 0.0 | 19.0 | 0.0 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.6 |
| use toilet upstairs | 52.4 | 4.1 | 0.0 | 0.0 | 5.7 | 0.0 | 0.0 | 0.5 | 25.8 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.5 |
| shave | 9.8 | 5.0 | 0.0 | 0.0 | 22.9 | 0.0 | 0.0 | 54.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.7 |
| go to bed | 0.6 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 98.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 |
| get dressed | 32.5 | 1.0 | 0.0 | 0.0 | 21.7 | 0.0 | 0.0 | 0.2 | 44.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| take medication | 34.7 | 0.0 | 0.0 | 0.0 | 8.2 | 0.0 | 0.0 | 45.8 | 11.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 81.7 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.2 |
| prepare Lunch | 79.9 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.1 | 0.0 | 0.0 | 0.0 | 7.7 |
| prepare Dinner | 67.7 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.7 | 0.0 | 0.0 | 0.0 | 4.1 |
| get snack | 41.0 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 27.1 | 0.0 | 0.0 | 0.0 | 36.7 |
| get drink | 41.2 | 0.0 | 0.0 | 0.0 | 6.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 31.0 | 0.0 | 0.0 | 0.0 | 21.5 |
| put clothes in washingmachine | 89.6 | 0.0 | 0.0 | 0.0 | 10.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| relax | 2.2 | 0.3 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 96.8 |

House A Model SSVM Feature Change

| | | | | | | | | | | |
|-------------------|------|-------------|------------|-------------|-------------|-----------|-------------------|----------------|-----------|-----------|
| idle | idle | leave house | use toilet | take shower | brush teeth | go to bed | prepare Breakfast | prepare Dinner | get snack | get drink |
| 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| leave house | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet | 0.0 | 97.0 | 2.9 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| take shower | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| brush teeth | 0.0 | 99.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Dinner | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get snack | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get drink | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

House A Model SSVM Feature Raw

| | idle | leave house | use toilet | take shower | brush teeth | go to bed | prepare Breakfast | prepare Dinner | get snack | get drink |
|-------------------|------|-------------|------------|-------------|-------------|-----------|-------------------|----------------|-----------|-----------|
| idle | 13.5 | 46.1 | 0.2 | 0.1 | 0.0 | 40.1 | 0.0 | 0.1 | 0.0 | 0.0 |
| leave house | 0.1 | 80.0 | 0.3 | 0.0 | 0.0 | 19.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet | 7.3 | 41.7 | 1.0 | 0.0 | 0.0 | 49.8 | 0.0 | 0.1 | 0.1 | 0.0 |
| take shower | 3.1 | 43.4 | 1.8 | 0.7 | 0.0 | 50.3 | 0.0 | 0.7 | 0.0 | 0.0 |
| brush teeth | 6.8 | 79.6 | 0.1 | 0.0 | 1.1 | 12.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 7.5 | 38.0 | 0.0 | 0.0 | 0.0 | 54.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 6.3 | 34.2 | 3.4 | 0.0 | 0.1 | 55.6 | 0.0 | 0.0 | 0.5 | 0.0 |
| prepare Dinner | 16.0 | 30.2 | 1.4 | 0.0 | 0.3 | 52.0 | 0.0 | 0.0 | 0.1 | 0.0 |
| get snack | 16.2 | 29.8 | 0.0 | 0.0 | 0.0 | 52.9 | 0.0 | 0.0 | 1.0 | 0.1 |
| get drink | 17.9 | 20.7 | 0.0 | 0.0 | 0.0 | 61.4 | 0.0 | 0.0 | 0.0 | 0.0 |

House A Model SSVM Feature Last

| | idle | leave house | use toilet | take shower | brush teeth | go to bed | prepare Breakfast | prepare Dinner | get snack | get drink |
|-------------------|------|-------------|------------|-------------|-------------|-----------|-------------------|----------------|-----------|-----------|
| idle | 85.8 | 6.7 | 1.9 | 0.0 | 0.0 | 4.7 | 0.0 | 0.9 | 0.0 | 0.0 |
| leave house | 0.1 | 99.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet | 86.0 | 0.5 | 7.7 | 0.0 | 0.0 | 5.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| take shower | 99.9 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| brush teeth | 85.0 | 6.2 | 3.0 | 0.0 | 0.0 | 4.6 | 0.0 | 1.3 | 0.0 | 0.0 |
| go to bed | 4.7 | 0.0 | 2.1 | 0.0 | 0.0 | 93.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 98.6 | 0.0 | 0.1 | 0.0 | 0.0 | 1.0 | 0.0 | 0.2 | 0.0 | 0.0 |
| prepare Dinner | 94.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.3 | 0.0 | 0.0 |
| get snack | 98.0 | 1.2 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.2 | 0.0 | 0.0 |
| get drink | 97.2 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |

House B Model SSVM Feature Change

| | idle | Leaving the house | Use toilet | Take shower | Brush teeth | Shaving | Go to bed | Get dressed | Prepare brunch | Prepare dinner | Unknown | Get a drink | Wash dishes | Answering phone | Eat dinner | Eat brunch | Setting up sensors | Unpacking | Install sensor | On phone | Fasten kitchen camera | Wash toaster | Play piano | Gwenn searches keys | Prepare for leaving | Drop dish (No dishwasher) |
|---------------------------|------|-------------------|------------|-------------|-------------|---------|-----------|-------------|----------------|----------------|---------|-------------|-------------|-----------------|------------|------------|--------------------|-----------|----------------|----------|-----------------------|--------------|------------|---------------------|---------------------|---------------------------|
| idle | 0.2 | 99.1 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Leaving the house | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Use toilet | 0.0 | 97.8 | 0.0 | 1.7 | 0.0 | 0.3 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Take shower | 1.6 | 79.4 | 0.0 | 18.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Brush teeth | 5.5 | 82.0 | 0.0 | 1.0 | 0.6 | 0.4 | 0.0 | 0.0 | 8.2 | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 |
| Shaving | 1.3 | 89.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.4 | 0.0 | 8.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Go to bed | 0.0 | 96.7 | 0.0 | 0.0 | 0.0 | 0.0 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Get dressed | 0.0 | 98.7 | 0.0 | 0.6 | 0.0 | 0.0 | 0.1 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prepare brunch | 3.1 | 91.9 | 0.0 | 0.0 | 0.4 | 0.0 | 0.2 | 0.0 | 3.9 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| Prepare dinner | 4.0 | 87.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.3 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Unknown | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Get a drink | 1.3 | 92.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 4.8 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wash dishes | 2.8 | 95.4 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Answering phone | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eat dinner | 0.1 | 99.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eat brunch | 0.0 | 99.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Setting up sensors | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Unpacking | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Install sensor | 1.4 | 95.8 | 0.0 | 1.1 | 0.1 | 0.0 | 0.0 | 0.0 | 1.3 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 |
| On phone | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fasten kitchen camera | 4.5 | 90.9 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 3.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wash toaster | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Play piano | 0.0 | 99.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gwenn searches keys | 1.4 | 94.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 3.1 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prepare for leaving | 0.7 | 97.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Drop dish (No dishwasher) | 0.0 | 95.7 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

House B Model SSVM Feature Raw

| | idle | Leaving the house | Use toilet | Take shower | Brush teeth | Shaving | Go to bed | Get dressed | Prepare brunch | Prepare dinner | Unknown | Get a drink | Wash dishes | Answering phone | Eat dinner | Eat brunch | Setting up sensors | Unpacking | Install sensor | On phone | Fasten kitchen camera | Wash toaster | Play piano | Gwen searches keys | Prepare for leaving | Drop dish (No dishwasher) |
|---------------------------|------|-------------------|------------|-------------|-------------|---------|-----------|-------------|----------------|----------------|---------|-------------|-------------|-----------------|------------|------------|--------------------|-----------|----------------|----------|-----------------------|--------------|------------|--------------------|---------------------|---------------------------|
| idle | 25.0 | 47.9 | 0.0 | 0.1 | 0.0 | 0.0 | 24.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.0 | 0.1 | 0.1 | 0.3 | 0.2 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 1.7 | 0.0 | 0.0 | 0.0 |
| Leaving the house | 0.0 | 99.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Use toilet | 11.7 | 70.6 | 0.1 | 0.7 | 0.0 | 0.0 | 12.3 | 0.0 | 0.9 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.3 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 |
| Take shower | 16.6 | 51.7 | 0.2 | 20.3 | 0.0 | 0.0 | 10.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Brush teeth | 8.0 | 88.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Shaving | 0.0 | 76.0 | 0.0 | 0.0 | 0.0 | 5.4 | 0.0 | 0.0 | 0.0 | 18.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Go to bed | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 99.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Get dressed | 6.3 | 21.2 | 0.0 | 0.3 | 0.0 | 0.0 | 64.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 7.7 | 0.0 | 0.0 | 0.0 |
| Prepare brunch | 16.0 | 39.5 | 0.0 | 0.0 | 0.1 | 0.0 | 26.8 | 0.0 | 5.5 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.3 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 2.4 | 0.0 | 0.0 | 0.0 |
| Prepare dinner | 32.5 | 27.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.7 | 0.0 | 4.8 | 19.2 | 0.0 | 0.0 | 0.1 | 0.9 | 1.5 | 0.6 | 0.8 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 11.3 | 0.0 | 0.0 | 0.0 |
| Unknown | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Get a drink | 16.3 | 70.7 | 1.1 | 0.0 | 0.0 | 0.0 | 5.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.7 | 0.0 | 0.0 | 0.0 | 2.7 | 0.0 | 0.0 | 0.0 |
| Wash dishes | 21.0 | 71.3 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.4 | 2.5 | 0.0 | 0.0 | 0.1 | 0.0 | 1.0 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 | 0.0 |
| Answering phone | 0.0 | 98.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.7 | 0.0 | 0.0 | 0.0 |
| Eat dinner | 29.9 | 46.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.0 | 0.0 | 0.0 | 0.0 |
| Eat brunch | 6.9 | 33.4 | 0.0 | 0.0 | 0.0 | 0.0 | 20.0 | 0.0 | 0.8 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15.4 | 0.0 | 0.0 | 0.0 |
| Setting up sensors | 1.7 | 8.8 | 0.0 | 1.5 | 0.0 | 0.0 | 27.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 44.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Unpacking | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 99.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Install sensor | 37.7 | 21.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 41.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| On phone | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fasten kitchen camera | 0.0 | 67.0 | 0.0 | 0.0 | 0.0 | 1.4 | 28.4 | 0.0 | 0.0 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wash toaster | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Play piano | 7.2 | 28.2 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 59.9 | 0.0 | 0.0 | 0.0 |
| Gwen searches keys | 99.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prepare for leaving | 1.1 | 83.2 | 0.1 | 0.0 | 0.3 | 0.3 | 0.6 | 0.0 | 0.0 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.2 | 0.0 | 0.0 | 0.0 |
| Drop dish (No dishwasher) | 48.4 | 47.3 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

House B Model SSVM Feature Last

| | idle | Leaving the house | Use toilet | Take shower | Brush teeth | Shaving | Go to bed | Get dressed | Prepare brunch | Prepare dinner | Unknown | Get a drink | Wash dishes | Answering phone | Eat dinner | Eat brunch | Setting up sensors | Unpacking | Install sensor | On phone | Fasten kitchen camera | Wash toaster | Play piano | Gwenn searches keys | Prepare for leaving | Drop dish (No dishwasher) |
|---------------------------|------|-------------------|------------|-------------|-------------|---------|-----------|-------------|----------------|----------------|---------|-------------|-------------|-----------------|------------|------------|--------------------|-----------|----------------|----------|-----------------------|--------------|------------|---------------------|---------------------|---------------------------|
| idle | 21.8 | 47.7 | 2.1 | 1.2 | 0.0 | 0.0 | 12.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.4 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 14.3 | 0.0 | 0.0 | 0.0 |
| Leaving the house | 0.0 | 94.5 | 0.0 | 4.1 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Use toilet | 3.6 | 12.7 | 55.4 | 21.0 | 0.0 | 0.0 | 6.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 |
| Take shower | 0.0 | 22.2 | 2.7 | 72.0 | 0.0 | 0.0 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 |
| Brush teeth | 10.2 | 70.7 | 4.4 | 1.4 | 0.0 | 0.0 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.5 | 0.0 | 0.0 | 0.0 |
| Shaving | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Go to bed | 0.0 | 13.2 | 0.1 | 0.0 | 0.0 | 0.0 | 86.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Get dressed | 5.2 | 9.5 | 6.1 | 2.7 | 0.0 | 0.0 | 70.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prepare brunch | 8.5 | 49.8 | 0.0 | 0.0 | 0.0 | 0.0 | 4.2 | 0.0 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 14.3 | 14.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prepare dinner | 4.8 | 84.2 | 1.4 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 0.2 | 0.9 | 0.0 | 0.0 | 2.8 | 0.0 | 1.3 | 3.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 |
| Unknown | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Get a drink | 4.8 | 59.5 | 0.0 | 0.0 | 0.0 | 0.0 | 6.7 | 0.0 | 5.1 | 0.0 | 0.0 | 0.0 | 45.1 | 0.0 | 17.1 | 6.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wash dishes | 6.7 | 31.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 6.6 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.1 | 0.0 | 0.0 | 0.0 |
| Answering phone | 0.0 | 58.4 | 0.0 | 0.0 | 0.0 | 0.0 | 37.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 40.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.4 | 0.0 | 0.0 | 0.0 |
| Eat dinner | 0.0 | 12.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 31.6 | 0.0 | 0.0 | 0.0 |
| Eat brunch | 0.0 | 70.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15.9 | 0.0 | 0.0 | 0.0 |
| Setting up sensors | 42.4 | 12.1 | 6.6 | 0.0 | 0.0 | 0.0 | 21.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.5 | 0.0 | 0.7 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.0 | 0.0 | 0.0 | 0.0 |
| Unpacking | 18.3 | 56.9 | 0.8 | 1.7 | 0.0 | 0.0 | 16.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 6.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Install sensor | 41.5 | 35.5 | 0.0 | 4.4 | 0.0 | 0.0 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.3 | 0.0 | 0.0 | 8.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| On phone | 0.0 | 35.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 64.9 | 0.0 | 0.0 | 0.0 |
| Fasten kitchen camera | 0.0 | 99.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wash toaster | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Play piano | 0.1 | 3.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 96.5 | 0.0 | 0.0 | 0.0 |
| Gwenn searches keys | 0.5 | 94.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 |
| Prepare for leaving | 14.2 | 31.6 | 5.2 | 0.0 | 0.0 | 0.0 | 19.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 28.6 | 0.0 | 0.0 | 0.0 |
| Drop dish (No dishwasher) | 15.1 | 67.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.2 | 0.0 | 0.0 | 0.0 |

House C Model SSVM Feature Change

[illegible]

House C Model SSVM Feature Raw

| | idle | leave house | Eating | use toilet downstairs | take shower | brush teeth | use toilet upstairs | shave | go to bed | get dressed | take medication | prepare Breakfast | prepare Lunch | prepare Dinner | get snack | get drink | put clothes in washingmachine | relax |
|-------------------------------|------|-------------|--------|-----------------------|-------------|-------------|---------------------|-------|-----------|-------------|-----------------|-------------------|---------------|----------------|-----------|-----------|-------------------------------|-------|
| idle | 36.6 | 36.7 | 0.1 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 22.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 4.1 |
| leave house | 9.4 | 74.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 14.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 |
| Eating | 21.3 | 46.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 18.4 |
| use toilet downstairs | 20.5 | 44.2 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 27.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.4 | 6.7 |
| take shower | 6.5 | 69.2 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 21.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.8 |
| brush teeth | 6.5 | 63.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.3 |
| use toilet upstairs | 8.4 | 48.3 | 0.2 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 41.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.9 |
| shave | 6.3 | 54.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 28.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.9 |
| go to bed | 5.4 | 41.6 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 50.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.1 |
| get dressed | 2.0 | 62.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 32.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.9 |
| take medication | 31.1 | 48.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 19.3 | 53.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 27.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.1 |
| prepare Lunch | 16.9 | 69.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.7 |
| prepare Dinner | 15.4 | 72.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.4 | 0.0 | 0.0 | 0.0 | 0.0 | 3.2 | 0.0 | 0.0 | 0.1 | 2.2 |
| get snack | 23.2 | 33.2 | 0.0 | 0.0 | 1.4 | 0.0 | 0.0 | 0.0 | 36.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.0 |
| get drink | 51.4 | 26.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 8.7 |
| put clothes in washingmachine | 21.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 39.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 39.6 | 0.0 |
| relax | 10.9 | 42.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 34.9 |

House C Model SSVM Feature Last

House A Model CRF Feature Change

| | idle | leave house | Eating | use toilet downstairs | take shower | brush teeth | use toilet upstairs | shave | go to bed | get dressed | take medication | prepare Breakfast | prepare Lunch | prepare Dinner | get snack | get drink | put clothes in washingmachine | relax |
|-------------------------------|------|-------------|--------|-----------------------|-------------|-------------|---------------------|-------|-----------|-------------|-----------------|-------------------|---------------|----------------|-----------|-----------|-------------------------------|-------|
| idle | 85.5 | 8.5 | 0.0 | 0.0 | 1.8 | 0.0 | 0.0 | 0.4 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| leave house | 13.3 | 86.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eating | 91.4 | 0.2 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet downstairs | 87.7 | 11.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| take shower | 32.7 | 0.0 | 0.0 | 0.0 | 63.4 | 0.0 | 0.0 | 0.2 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| brush teeth | 62.1 | 0.6 | 0.0 | 0.0 | 24.5 | 0.1 | 0.0 | 11.6 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 |
| use toilet upstairs | 64.9 | 4.1 | 0.0 | 0.0 | 4.9 | 0.0 | 0.0 | 0.2 | 25.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| shave | 37.5 | 5.0 | 0.0 | 0.0 | 22.2 | 0.4 | 0.0 | 33.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 1.5 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 98.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 |
| get dressed | 72.0 | 1.0 | 0.0 | 0.0 | 21.8 | 0.0 | 0.0 | 0.0 | 0.0 | 5.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| take medication | 52.7 | 0.0 | 0.0 | 0.0 | 8.2 | 0.0 | 0.0 | 27.8 | 11.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 85.9 | 0.0 | 0.1 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 12.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Lunch | 83.0 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 12.4 | 0.0 | 0.0 | 0.0 | 0.1 |
| prepare Dinner | 64.5 | 5.1 | 3.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 26.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| get snack | 80.4 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| get drink | 85.4 | 0.0 | 0.0 | 0.0 | 5.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| put clothes in washingmachine | 77.3 | 0.0 | 0.0 | 0.0 | 10.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| relax | 99.4 | 0.3 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |

| | | | | | | | | | | |
|-------------------|------|-------------|------------|-------------|-------------|-----------|-------------------|----------------|-----------|-----------|
| idle | idle | leave house | use toilet | take shower | brush teeth | go to bed | prepare Breakfast | prepare Dinner | get snack | get drink |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| leave house | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| take shower | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| brush teeth | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Dinner | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get snack | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get drink | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 |

House A Model CRF Feature Raw

| | idle | leave house | use toilet | take shower | brush teeth | go to bed | prepare Breakfast | prepare Dinner | get snack | get drink |
|-------------------|------|-------------|------------|-------------|-------------|-----------|-------------------|----------------|-----------|-----------|
| idle | 9.4 | 28.8 | 0.0 | 0.0 | 0.0 | 61.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| leave house | 0.0 | 66.5 | 0.0 | 0.0 | 0.0 | 33.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet | 3.8 | 11.9 | 0.0 | 0.0 | 0.0 | 84.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| take shower | 0.0 | 12.5 | 0.0 | 0.0 | 0.0 | 87.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| brush teeth | 5.9 | 74.2 | 0.0 | 0.0 | 0.0 | 19.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 3.6 | 14.9 | 0.0 | 0.0 | 0.0 | 81.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 0.0 | 19.1 | 0.0 | 0.0 | 0.0 | 80.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Dinner | 5.9 | 12.2 | 0.0 | 0.0 | 0.0 | 81.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| get snack | 13.5 | 13.9 | 0.0 | 0.0 | 0.0 | 72.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| get drink | 4.7 | 15.2 | 0.0 | 0.0 | 0.0 | 80.1 | 0.0 | 0.0 | 0.0 | 0.0 |

House A Model CRF Feature Last

| | idle | leave house | use toilet | take shower | brush teeth | go to bed | prepare Breakfast | prepare Dinner | get snack | get drink |
|-------------------|------|-------------|------------|-------------|-------------|-----------|-------------------|----------------|-----------|-----------|
| idle | 90.6 | 6.7 | 0.0 | 0.0 | 0.0 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| leave house | 0.1 | 99.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet | 97.3 | 0.5 | 0.0 | 0.0 | 0.0 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| take shower | 99.9 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| brush teeth | 93.8 | 6.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 97.4 | 0.0 | 0.0 | 0.0 | 0.0 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 99.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Dinner | 99.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| get snack | 98.8 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get drink | 97.3 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

House B Model CRF Feature Change

[illegible]

House B Model CRF Feature Raw

[illegible]

House B Model CRF Feature Last

House C Model CRF Feature Change

[illegible]

House C Model CRF Feature Raw

| | idle | leave house | Eating | use toilet downstairs | take shower | brush teeth | use toilet upstairs | shave | go to bed | get dressed | take medication | prepare Breakfast | prepare Lunch | prepare Dinner | get snack | get drink | put clothes in washingmachine | relax |
|-------------------------------|------|-------------|--------|-----------------------|-------------|-------------|---------------------|-------|-----------|-------------|-----------------|-------------------|---------------|----------------|-----------|-----------|-------------------------------|-------|
| idle | 36.2 | 27.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 34.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.1 |
| leave house | 10.4 | 54.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 35.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eating | 23.5 | 34.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 33.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.4 |
| use toilet downstairs | 18.7 | 42.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 37.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 |
| take shower | 8.8 | 49.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 37.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.5 |
| brush teeth | 6.3 | 38.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 51.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.2 |
| use toilet upstairs | 12.8 | 8.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 76.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 |
| shave | 0.0 | 59.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 30.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.3 |
| go to bed | 6.8 | 12.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 78.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.7 |
| get dressed | 2.0 | 32.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 52.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.6 |
| take medication | 76.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 9.9 | 33.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 56.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Lunch | 20.0 | 66.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Dinner | 10.2 | 59.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.6 |
| get snack | 40.2 | 11.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 42.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.0 |
| get drink | 48.7 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 40.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.7 |
| put clothes in washingmachine | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| relax | 16.0 | 35.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 26.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.1 |

House C Model CRF Feature Last

| | idle | leave house | Eating | use toilet downstairs | use toilet upstairs | brush teeth | shave | go to bed | get dressed | take medication | prepare Breakfast | prepare Lunch | prepare Dinner | get snack | get drink | put clothes in washingmachine | relax |
|-------------------------------|-------|-------------|--------|-----------------------|---------------------|-------------|-------|-----------|-------------|-----------------|-------------------|---------------|----------------|-----------|-----------|-------------------------------|-------|
| idle | 91.6 | 7.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| leave house | 13.8 | 86.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eating | 99.8 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet downstairs | 88.7 | 11.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| take shower | 96.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| brush teeth | 99.4 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet upstairs | 70.0 | 4.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 25.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| shave | 95.0 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 98.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get dressed | 99.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| take medication | 88.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Lunch | 95.6 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Dinner | 99.1 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get snack | 97.9 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get drink | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| put clothes in washingmachine | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| relax | 99.7 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

House A Model HMM Feature Change

| | idle | leave house | Eating | use toilet | take shower | brush teeth | go to bed | prepare Breakfast | prepare Dinner | get snack | get drink | put items in dishwasher | unload dishwasher | store groceries | put clothes in washingmachine | unload washingmachine | receive guest |
|-------------------------------|------|-------------|--------|------------|-------------|-------------|-----------|-------------------|----------------|-----------|-----------|-------------------------|-------------------|-----------------|-------------------------------|-----------------------|---------------|
| idle | 40.4 | 18.8 | 0.0 | 2.7 | 0.0 | 0.0 | 9.2 | 0.0 | 82.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| leave house | 1.3 | 98.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eating | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet | 18.8 | 1.4 | 0.0 | 68.7 | 0.0 | 0.0 | 9.1 | 0.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| take shower | 33.9 | 10.5 | 0.0 | 0.0 | 54.7 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| brush teeth | 44.3 | 17.2 | 0.0 | 38.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 10.4 | 50.7 | 0.0 | 0.0 | 0.0 | 0.0 | 38.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 99.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Dinner | 0.0 | 3.7 | 0.0 | 0.0 | 0.0 | 0.0 | 45.8 | 0.0 | 64.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get snack | 34.8 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 32.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get drink | 62.3 | 4.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| put items in dishwasher | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| unload dishwasher | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| store groceries | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| put clothes in washingmachine | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| unload washingmachine | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| receive guest | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

House A Model HMM Feature Raw

| | idle | leave house | Eating | use toilet | take shower | brush teeth | go to bed | prepare Breakfast | prepare Dinner | get snack | get drink | put items in dishwasher | unload dishwasher | store groceries | put clothes in washingmachine | unload washingmachine | receive guest |
|-------------------------------|------|-------------|--------|------------|-------------|-------------|-----------|-------------------|----------------|-----------|-----------|-------------------------|-------------------|-----------------|-------------------------------|-----------------------|---------------|
| idle | 10.3 | 55.5 | 0.0 | 0.0 | 0.0 | 0.0 | 23.8 | 0.0 | 10.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| leave house | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eating | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet | 7.7 | 67.3 | 0.0 | 4.6 | 0.0 | 0.0 | 20.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| take shower | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| brush teeth | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 0.0 | 85.4 | 0.0 | 0.0 | 0.0 | 0.0 | 14.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 29.8 | 24.7 | 0.0 | 0.0 | 0.0 | 0.0 | 22.4 | 0.0 | 23.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Dinner | 28.2 | 62.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 8.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get snack | 4.7 | 33.2 | 0.0 | 0.0 | 0.0 | 0.0 | 30.7 | 0.0 | 31.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get drink | 19.4 | 75.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 4.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| put items in dishwasher | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| unload dishwasher | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| store groceries | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| put clothes in washingmachine | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| unload washingmachine | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| receive guest | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

House A Model HMM Feature Last

| | idle | leave house | Eating | use toilet | take shower | brush teeth | go to bed | prepare Breakfast | prepare Dinner | get snack | get drink | put items in dishwasher | unload dishwasher | store groceries | put clothes in washingmachine | unload washingmachine | receive guest |
|-------------------------------|-------|-------------|--------|------------|-------------|-------------|-----------|-------------------|----------------|-----------|-----------|-------------------------|-------------------|-----------------|-------------------------------|-----------------------|---------------|
| idle | 81.5 | 9.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| leave house | 0.1 | 99.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eating | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet | 97.8 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| take shower | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| brush teeth | 83.4 | 16.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 49.6 | 45.8 | 0.0 | 0.0 | 0.0 | 0.0 | 4.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 82.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Dinner | 92.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get snack | 65.7 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 33.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get drink | 90.9 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| put items in dishwasher | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| unload dishwasher | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| store groceries | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| put clothes in washingmachine | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| unload washingmachine | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| receive guest | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

House B Model HMM Feature Change

[illegible]

House B Model HMM Feature Raw

| | idle | Leaving the house | Use toilet | Take shower | Brush teeth | Shaving | Go to bed | Get dressed | Prepare brunch | Prepare dinner | Get a drink | Wash dishes | Answering phone | Eat dinner | Eat brunch | Setting up sensors | Unpacking | Install sensor | On phone | Fasten kitchen camera | Wash toaster | Play piano | Gwenn searches keys | Prepare for leaving | Drop dish (No dishwash) | Water baobab |
|-------------------------|-------|-------------------|------------|-------------|-------------|---------|-----------|-------------|----------------|----------------|-------------|-------------|-----------------|------------|------------|--------------------|-----------|----------------|----------|-----------------------|--------------|------------|---------------------|---------------------|-------------------------|--------------|
| idle | 13.6 | 86.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Leaving the house | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Use toilet | 17.1 | 82.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Take shower | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Brush teeth | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Shaving | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Go to bed | 0.0 | 95.1 | 0.0 | 0.0 | 0.0 | 0.0 | 4.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Get dressed | 0.0 | 90.2 | 0.0 | 0.0 | 0.0 | 0.0 | 9.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prepare brunch | 36.7 | 63.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prepare dinner | 1.7 | 98.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Get a drink | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wash dishes | 4.6 | 95.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Answering phone | 0.0 | 99.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eat dinner | 0.1 | 99.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eat brunch | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Setting up sensors | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Unpacking | 4.8 | 93.9 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Install sensor | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| On phone | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fasten kitchen camera | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wash toaster | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Play piano | 4.2 | 95.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gwenn searches keys | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prepare for leaving | 0.0 | 99.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Drop dish (No dishwash) | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Water baobab | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

House B Model HMM Feature Last

[illegible]

House C Model HMM Feature Change

[illegible]

House C Model HMM Feature Raw

[illegible]

House C Model HMM Feature Last

[illegible]

House A Model NB Feature Change

| | idle | leave house | use toilet | take shower | brush teeth | go to bed | prepare Breakfast | prepare Dinner | get snack | get drink |
|-------------------|------|-------------|------------|-------------|-------------|-----------|-------------------|----------------|-----------|-----------|
| idle | 0.0 | 99.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| leave house | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet | 0.0 | 94.4 | 5.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| take shower | 0.0 | 98.8 | 0.0 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| brush teeth | 0.0 | 96.6 | 1.1 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 0.2 | 93.1 | 0.0 | 0.0 | 0.0 | 0.0 | 4.8 | 0.0 | 0.0 | 0.0 |
| prepare Dinner | 0.3 | 98.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.1 | 0.1 | 0.1 |
| get snack | 0.0 | 93.2 | 0.0 | 0.0 | 0.0 | 0.0 | 4.3 | 0.6 | 1.9 | 0.0 |
| get drink | 0.0 | 90.6 | 0.0 | 0.0 | 0.0 | 0.0 | 5.7 | 0.6 | 0.0 | 3.1 |

House A Model NB Feature Raw

| | idle | leave house | use toilet | take shower | brush teeth | go to bed | prepare Breakfast | prepare Dinner | get snack | get drink |
|-------------------|------|-------------|------------|-------------|-------------|-----------|-------------------|----------------|-----------|-----------|
| idle | 1.3 | 29.4 | 0.0 | 0.0 | 0.0 | 69.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| leave house | 0.0 | 68.2 | 0.0 | 0.0 | 0.0 | 31.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet | 0.0 | 23.6 | 2.0 | 0.0 | 0.0 | 74.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| take shower | 0.0 | 26.4 | 0.0 | 0.0 | 0.0 | 73.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| brush teeth | 5.5 | 73.6 | 0.4 | 0.0 | 0.0 | 20.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 0.0 | 14.9 | 0.0 | 0.0 | 0.0 | 85.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 5.6 | 14.8 | 0.0 | 0.0 | 0.0 | 70.4 | 2.1 | 5.7 | 0.0 | 1.3 |
| prepare Dinner | 2.5 | 18.2 | 0.0 | 0.0 | 0.0 | 77.5 | 0.4 | 1.3 | 0.0 | 0.1 |
| get snack | 3.4 | 11.9 | 0.0 | 0.0 | 0.0 | 78.0 | 0.9 | 5.5 | 0.2 | 0.0 |
| get drink | 7.5 | 10.1 | 0.0 | 0.0 | 0.0 | 61.0 | 2.8 | 6.0 | 0.0 | 12.6 |

House A Model NB Feature Last

| | idle | leave house | use toilet | take shower | brush teeth | go to bed | prepare Breakfast | prepare Dinner | get snack | get drink |
|-------------------|-------|-------------|------------|-------------|-------------|-----------|-------------------|----------------|-----------|-----------|
| idle | 86.1 | 6.7 | 0.2 | 0.0 | 0.0 | 7.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| leave house | 0.1 | 99.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| use toilet | 77.8 | 0.6 | 0.7 | 0.0 | 0.0 | 20.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| take shower | 99.9 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| brush teeth | 85.0 | 5.9 | 0.0 | 0.0 | 0.0 | 9.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| go to bed | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 | 95.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| prepare Breakfast | 98.3 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | 0.5 | 0.0 | 0.0 |
| prepare Dinner | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| get snack | 98.1 | 1.3 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| get drink | 96.9 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

House B Model NB Feature Change

House B Model NB Feature Raw

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|-------------------|------------|-------------|-------------|---------|-----------|-------------|----------------|----------------|---------|-------------|-------------|-----------------|------------|------------|--------------------|-----------|----------------|----------|-----------------------|--------------|------------|--------------------|---------------------|-------------------------|
| idle | Leaving the house | Use toilet | Take shower | Brush teeth | Shaving | Go to bed | Get dressed | Prepare brunch | Prepare dinner | Unknown | Get a drink | Wash dishes | Answering phone | Eat dinner | Eat brunch | Setting up sensors | Unpacking | Install sensor | On phone | Fasten kitchen camera | Wash toaster | Play piano | Gwen searches keys | Prepare for leaving | Drop dish (No dishwash) |
| 17.6 | 52.6 | 0.0 | 0.0 | 0.0 | 0.1 | 24.0 | 0.0 | 0.0 | 0.2 | 2.1 | 0.0 | 0.0 | 0.0 | 1.1 | 0.5 | 0.0 | 0.1 | 0.9 | 0.3 | 0.0 | 0.0 | 0.4 | 0.1 | 0.0 | 0.0 |
| 3.4 | 94.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 12.4 | 74.3 | 0.0 | 0.0 | 0.0 | 0.0 | 11.4 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 16.1 | 74.6 | 0.0 | 0.0 | 0.0 | 0.0 | 8.2 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4.9 | 82.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.1 | 0.0 | 0.0 | 0.0 | 9.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 16.1 | 51.3 | 0.0 | 0.0 | 0.0 | 48.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 0.1 | 5.5 | 0.0 | 0.0 | 0.0 | 0.0 | 99.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 6.5 | 16.1 | 0.0 | 0.0 | 0.0 | 0.0 | 67.5 | 1.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 8.5 | 0.0 | 0.0 | 0.0 |
| 7.6 | 60.0 | 0.0 | 0.0 | 1.2 | 0.0 | 26.4 | 0.0 | 1.3 | 0.1 | 0.7 | 0.0 | 0.0 | 0.0 | 7.8 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 |
| 1.2 | 63.6 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 26.6 | 97.4 | 0.1 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 |
| 0.0 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.1 | 0.0 | 0.0 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4.1 | 73.5 | 0.0 | 0.0 | 2.0 | 0.0 | 10.2 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 11.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 |
| 0.0 | 38.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 |
| 0.0 | 99.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 0.0 | 63.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 12.6 | 0.0 | 0.0 | 0.0 | 0.0 | 24.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 0.0 | 63.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.1 | 59.4 | 24.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 0.0 | 11.4 | 0.0 | 0.0 | 0.0 | 0.0 | 5.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 63.9 | 80.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 36.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2.8 | 16.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 0.0 | 50.6 | 0.0 | 0.0 | 0.0 | 18.9 | 30.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 7.6 | 34.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 0.0 | 17.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 80.7 | 0.0 | 0.0 |
| 0.0 | 90.3 | 0.0 | 0.0 | 0.0 | 1.8 | 1.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.6 | 0.0 | 0.0 | 0.0 |
| 3.4 | 79.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

House B Model NB Feature Last

| | idle | Leaving the house | Use toilet | Take shower | Brush teeth | Shaving | Go to bed | Get dressed | Prepare brunch | Prepare dinner | Unknown | Get a drink | Wash dishes | Answering phone | Eat dinner | Eat brunch | Setting up sensors | Unpacking | Install sensor | On phone | Fasten kitchen camera | Wash toaster | Play piano | Gwenn searches keys | Prepare for leaving | Drop dish (No dishwash) |
|-------------------------|-------|-------------------|------------|-------------|-------------|---------|-----------|-------------|----------------|----------------|---------|-------------|-------------|-----------------|------------|------------|--------------------|-----------|----------------|----------|-----------------------|--------------|------------|---------------------|---------------------|-------------------------|
| idle | 23.3 | 52.5 | 2.0 | 0.0 | 0.0 | 0.0 | 6.8 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.6 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 14.3 | 0.0 | 0.0 | 0.0 |
| Leaving the house | 0.0 | 99.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Use toilet | 9.3 | 35.7 | 52.2 | 0.0 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 | 0.0 |
| Take shower | 0.3 | 93.6 | 3.1 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 0.0 | 0.0 | 0.0 |
| Brush teeth | 13.7 | 69.1 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.4 | 0.0 | 0.0 | 0.0 |
| Shaving | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Go to bed | 0.3 | 15.2 | 0.1 | 0.0 | 0.0 | 0.0 | 84.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Get dressed | 28.3 | 12.2 | 4.7 | 0.0 | 0.0 | 0.0 | 49.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.7 | 0.0 | 0.0 | 0.0 |
| Prepare brunch | 7.9 | 51.5 | 0.1 | 0.0 | 0.0 | 0.0 | 4.1 | 0.0 | 7.0 | 0.3 | 0.0 | 0.0 | 2.7 | 0.0 | 15.9 | 8.4 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 4.3 | 0.0 | 0.0 | 0.0 |
| Prepare dinner | 2.3 | 84.4 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 3.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 0.5 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| Unknown | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Get a drink | 6.1 | 51.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 46.3 | 0.0 | 18.4 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wash dishes | 2.6 | 25.8 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 | 12.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.3 | 0.0 | 0.0 | 0.0 |
| Answering phone | 0.0 | 95.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Eat dinner | 0.0 | 14.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 54.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 31.9 | 0.0 | 0.0 | 0.0 |
| Eat brunch | 0.0 | 69.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.2 | 6.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.1 | 0.0 | 0.0 | 0.0 |
| Setting up sensors | 30.6 | 35.8 | 7.9 | 0.0 | 0.0 | 0.0 | 3.8 | 0.0 | 5.2 | 0.0 | 0.0 | 0.0 | 4.2 | 0.0 | 5.4 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.5 | 0.0 | 0.0 | 0.0 |
| Unpacking | 18.6 | 71.8 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 6.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Install sensor | 40.2 | 47.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.0 | 0.0 | 0.0 | 7.7 | 0.0 | 0.0 | 0.0 | 71.7 | 0.0 | 0.0 | 0.0 |
| On phone | 0.0 | 28.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fasten kitchen camera | 0.0 | 99.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wash toaster | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Play piano | 0.2 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 96.4 | 0.0 | 0.0 | 0.0 |
| Gwenn searches keys | 1.7 | 96.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prepare for leaving | 18.7 | 35.2 | 5.5 | 0.0 | 0.0 | 0.0 | 11.2 | 0.4 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 28.2 | 0.0 | 0.0 | 0.0 |
| Drop dish (No dishwash) | 13.8 | 55.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 31.0 | 0.0 | 0.0 | 0.0 |

House C Model NB Feature Change

[illegible]

House C Model NB Feature Raw

House C Model NB Feature Last

| | idle | leave house | Eating | use toilet downstairs | take shower | brush teeth | use toilet upstairs | shave | go to bed | get dressed | take medication | prepare Breakfast | prepare Lunch | prepare Dinner | get snack | get drink | put clothes in washingmachine | relax |
|-------------------------------|------|-------------|--------|-----------------------|-------------|-------------|---------------------|-------|-----------|-------------|-----------------|-------------------|---------------|----------------|-----------|-----------|-------------------------------|-------|
| idle | 34.5 | 37.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 4.1 |
| leave house | 6.1 | 67.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 21.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.8 |
| Eating | 20.0 | 46.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 14.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 18.8 |
| use toilet downstairs | 14.5 | 34.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 39.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 10.4 |
| take shower | 9.2 | 55.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 27.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.8 |
| brush teeth | 6.6 | 52.6 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 31.5 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.0 |
| use toilet upstairs | 12.3 | 34.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 45.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.2 |
| shave | 7.6 | 56.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 28.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.0 |
| go to bed | 8.1 | 38.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 50.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.6 |
| get dressed | 0.0 | 40.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.1 | 43.7 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15.8 |
| take medication | 9.0 | 72.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 |
| prepare Breakfast | 6.1 | 75.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.0 | 0.0 | 0.0 | 0.0 | 0.5 | 1.6 | 0.0 | 0.0 | 0.0 | 0.8 |
| prepare Lunch | 19.4 | 66.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.6 | 0.0 | 0.0 | 0.0 | 0.1 | 1.5 | 0.0 | 0.0 | 0.0 | 3.6 |
| prepare Dinner | 9.7 | 72.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 | 10.3 | 0.0 | 0.0 | 0.0 | 5.5 |
| get snack | 38.0 | 13.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 31.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 0.0 | 0.0 | 0.0 | 15.2 |
| get drink | 36.4 | 31.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 14.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.6 | 13.6 |
| put clothes in washingmachine | 0.0 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 99.1 | 0.0 |
| relax | 12.9 | 30.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 42.9 |

