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#include <iostream>
```

```
#include <mpi.h>
```

```
#include <vector>
```

```
int main(int argc, char** argv) {  
    MPI_Init(&argc, &argv);
```

```
    int world_size;  
    MPI_Comm_size(MPI_COMM_WORLD, &world_size);
```

```
    int my_rank;  
    MPI_Comm_rank(MPI_COMM_WORLD, &my_rank);
```

```
    char processor_name[MPI_MAX_PROCESSOR_NAME];  
    int name_len;  
    MPI_Get_processor_name(processor_name, &name_len);
```

```
    std::cout << "Process " << my_rank << " of " << world_size  
               << " is running on machine: " << processor_name << std::endl;
```

```
    MPI_Finalize();
```

```
    return 0;}
```





