Selection Sort

|A L G O R I T H M

A **|**L **G** O R I T H M

A G **|**L O R I T **H** M

A G H **|**O R I T L M

A G H I**|**R O T **L** M

A G H I L**|**O I T R **M**

A G H I L **M|**I T R **O**

A G H I L M O**|**I **R** T

A G H I L M O R**|**I **T**

A G H I L M O R T**|**I

Bubble Sort

A G L O **R**↔**I** T H M

A G L O I R **T**↔**H** M

A G L O I R H **T**↔**M**

A G L **O**↔**I** R H M T

A G L I O **R**↔**H** M T

A G L I O H **R**↔**M** T

A G **L**↔**I** O H M R T

A G I L **O**↔**H** M R T

A G I L H **O**↔**M** R T

A G I L **L**↔**H** M O R T

A G **I**↔**H** L M O R T

A G H I L M O R T

Quick Sort

E X A M P L **E**

E **E** A M P L X

A E **E** **M** P L X

A E E **M** P L X

A E E **M** L P X

A E E L **M** P X

Merge Sort

```
E X A M  P L E
E X A M  P L E
E X A M  P L E
E X A M  L P E
A E M X  E L P
A E E L M P X
```

Order of Growth - Sorted Data

- Bubble Sort
- Selection Sort
- Insertion Sort

Time Travel(s) vs Input Size

Order of Growth - Random Data