ICPC Sessions
OR
How to Solve Problems

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November 28, 2012

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- Algorithms; more than you did in COMP1009!

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- Beating Cambridge (and everyone else)!

Recommended Book(s)

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  - Thomas Cormen, Charles Leiserson, Ronald Riverst, Clifford Stein

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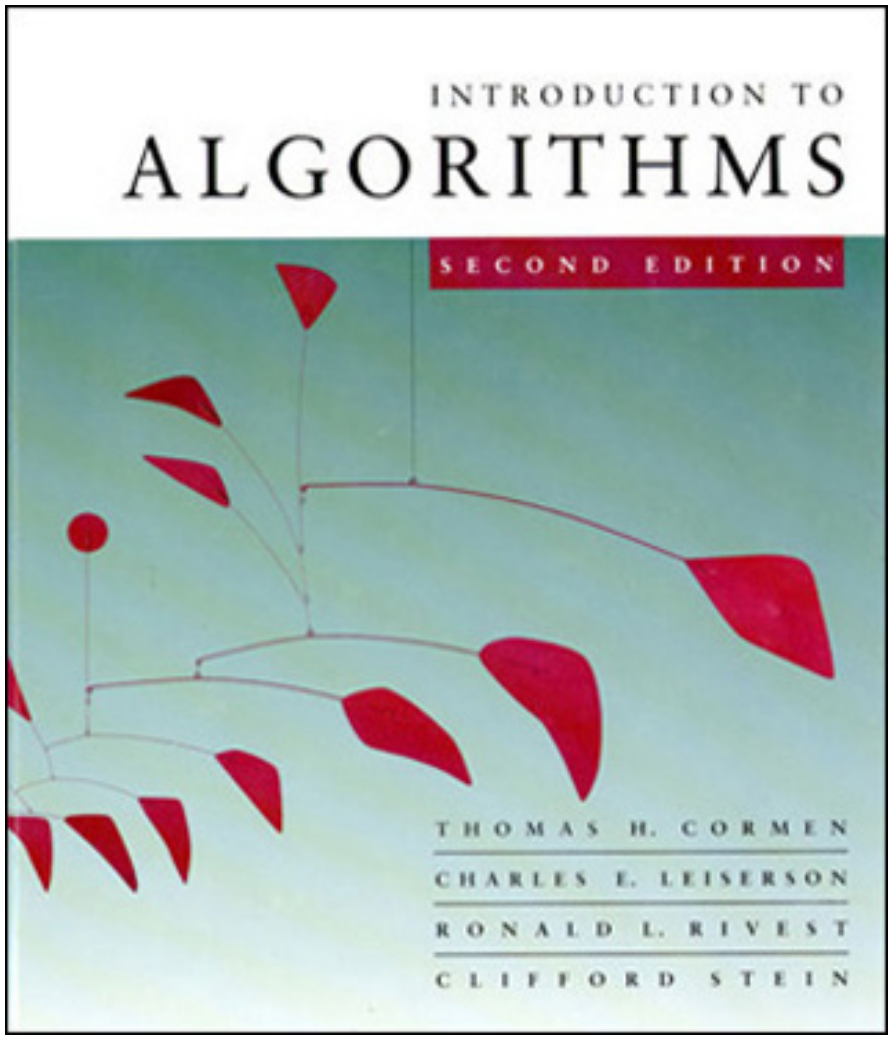
- **Algorithms in C/C++/Java/**
  - Robert Sedgewick



Binary Search

```
int binary_search(int *array, int n, int x)
{
    int lo = 0, hi = n - 1;
    while (lo < hi) {
        int mid = lo + (hi - lo) / 2;
        if (array[mid] < x)
        lo = mid + 1;
        else hi = mid;
    }

    if (lo == hi && array[lo] == x)
    return lo;
    return -1;
}
```

Ad-hoc Problems

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- There is always at least one in competitions