ICPC Sessions
OR
How to Solve Problems

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- The most prestigious global programming competition (since 1977)!

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- We are part of the Northwestern European region
- Top 3 teams will qualify for the Finals in St. Petersburg
- This means we will make Germany, Belgium, the Netherlands and others cry!

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- Actually using algorithms to solve problems!
- Beating Cambridge (and everyone else)!

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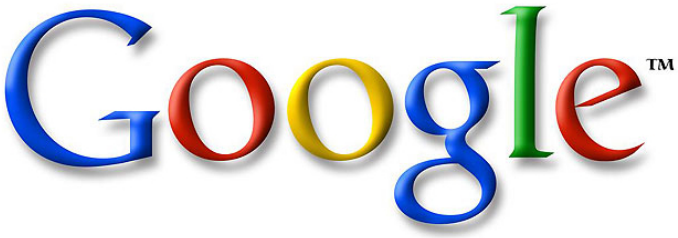

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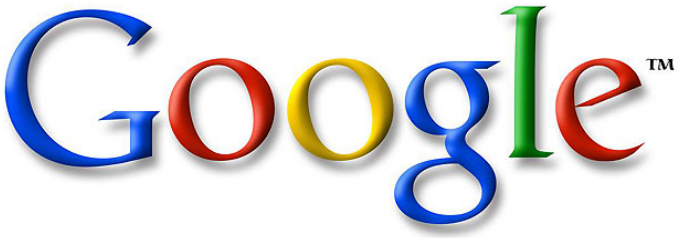

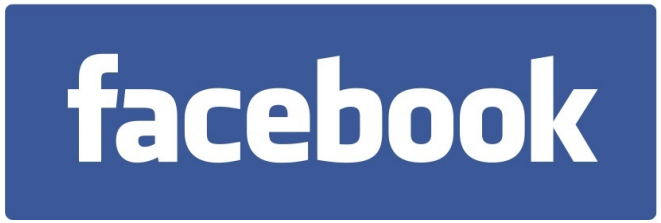

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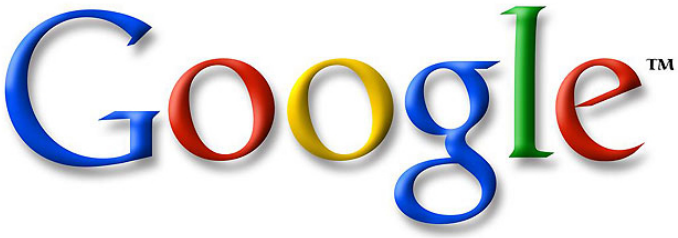

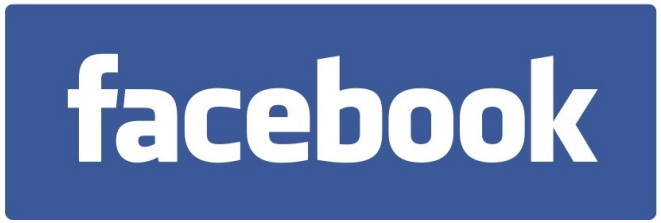

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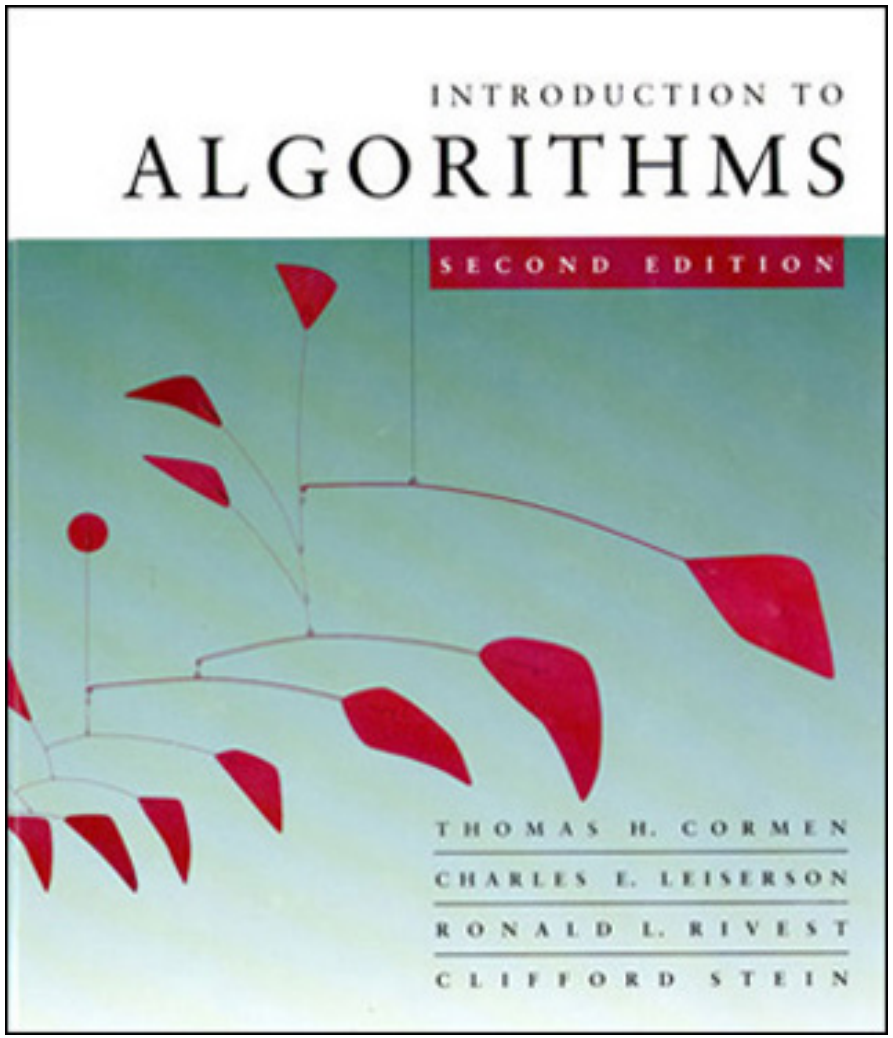
Recommended Book(s)

- **Introduction to Algorithms**
  - Thomas Cormen, Charles Leiserson, Ronald Rivest, Clifford Stein
- **Algorithms in C/C++/Java/**
  - Robert Sedgewick



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Can you?

Binary Search

```
1   int binary_search(int *array, int n, int x)
2   {
3       int lo = 0, hi = n - 1;
4       while (lo < hi) {
5           int mid = lo + (hi - lo) / 2;
6           if (array[mid] < x)
7               lo = mid + 1;
8           else hi = mid;
9       }
10
11      if (lo == hi && array[lo] == x)
12          return lo;
13      return -1;
14  }
```

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- There is always at least one in competitions

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Don't Panic!

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For this week, try your hand at these questions (all ad-hoc): http://uva.onlinejudge.org/index.php?option=com_onlinejudge&Itemid=8&category=121

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Thank You