

# Omar Hassan

Cairo, Egypt

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## Education

Cairo University

Bachelor of Science in Computer Science

Sep 2017 – Jun 2021 | Cairo, Egypt

GPA: 3.92/4.0

Activities: Competitive Programming Team, Open Source Club Founder, Student Mentor

Relevant Coursework: Data Structures, Algorithms, Operating Systems, Computer Architecture, Compiler Design, Programming Language Theory, Advanced Mathematics

Graduation Project: Distributed Algorithm Visualization Platform for Educational Purposes

## Work Experience

Software Engineer | Instabug | Jul 2021 - Present | Cairo, Egypt

- Implemented high-performance algorithms for real-time crash reporting system supporting 25,000+ mobile apps.
- Optimized data processing pipelines reducing latency by 75% while handling 500M+ daily events.
- Developed memory-efficient data structures for mobile SDK reducing client app footprint by 40%.
- Created custom algorithms for bug pattern detection achieving 92% accuracy in root cause identification.

## Skills

Algorithms: Searching, Sorting, Graph Algorithms, Dynamic Programming, Greedy Algorithms

Data Structures: Arrays, Linked Lists, Trees, Graphs, Hash Tables, Heaps, Tries

Algorithmic Paradigms: Divide and Conquer, Backtracking, Branch and Bound, Recursion

Complexity Analysis: Time Complexity, Space Complexity, Big O Notation, Optimization

## Techniques

Problem Solving: Algorithmic Thinking, Problem Decomposition, Pattern Recognition, Edge Cases

Competitive Programming: Codeforces, LeetCode, HackerRank, TopCoder, Project Euler

Other: System Design, Performance Optimization, Memory Management, Multi-threading, Parallel Algorithms

## Certificates

ACM Certified Professional Programmer

Google Certified Professional Algorithm Developer

Advanced Data Structures and Algorithms Certification

System Design Expert Certification

## Awards

Gold Medalist – ACM International Collegiate Programming Contest 2020

Top Performer – Google Code Jam 2021

Algorithm Innovation Award – Instabug Excellence Program 2022