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Nil Mamano

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github.com/nmamano

Education

PhD + Masters in Computer Science University of California Irvine, GPA 3.83/4 Sep 2015 – Dec 2019

B.E. in Computer Science Polytechnic University of Catalonia, GPA 3.8/4 (99th percentile) Sep 2011 – Jul 2015

Skills

Languages C++, C, Python, Go, Java, Javascript, Typescript, SQL, HTML, CSS.

Tools Git, Github, React, Node.js, MongoDB, WebSocket, WebAssembly.

Experience

Book Author

Beyond Cracking the Coding Interview amazon.com/dp/195570600X Aug 2024 – Feb 2025

Co-wrote the official sequel to 'Cracking the Coding Interview' with Gayle Laakmann McDowell, Aline Lerner, and Mike Mroczka.

Google

Senior Software Engineer Feb 2021 – Aug 2024

Worked on Google's internal software-defined WAN, optimizing the allocation of network bandwidth to Google's services.

Pathrise

Tech Interview Consultant Apr 2020 – Jan 2021

Revamped the A&DS curriculum for coding interviews. Developed and organized new programs and events for tech candidates to practice coding effectively. Prepared 100+ students for coding interviews by teaching algorithms and conducting mock interviews.

University of California Irvine

PhD Student Researcher scholar.google.bg/citations?user=LIuligEAAAAJ Sep 2015 – Dec 2019

Co-authored 9 peer-reviewed papers on algorithm design, including as main author in tier A conferences like ICALP and ISAAC. The papers describe new algorithmic improvements for problems in graph theory, computational geometry, and computational biology.

Led a research project from inception to publication: came up with an original problem, engaged 3 colleagues to work on it, and collaborated with them to solve it and write a paper. We invented an algorithm for the knight's tour problem.

Teaching Assistant Sep 2016 – Jun 2018

Presented 100+ sessions teaching algorithms to 50+ students, including guest lectures, with excellent student evaluations.

Championed the use of online automated grading to provide immediate feedback to the students and reduce the grading load. Led a study to measure the effect of automated grading (120 students split into experimental/control group).

Undergrad Researcher github.com/nmamano/SANA Feb 2015 – Jul 2015

C++, Bash, Oracle Grid Engine | Github (1600+ commits, 30+ collaborators) | Research (30+ citations) | Created SANA, a software to find alignments between biological networks by using a Simulated Annealing algorithm. Ran large-scale experiments in a computing cluster to optimize the algorithm and produce near-optimal alignments of PPI networks with 10k+ nodes and 100k+ edges in about an hour. Aligned networks with up to 100k nodes and 100 million edges.

Polytechnic University of Catalonia

Research Intern racso.cs.upc.edu/juezwsgi/about Feb 2014 – Sep 2014

Created 70+ exercises and exams for RACSO, a collection of online judges (automated grading tools) for CS courses.

C++ | Contributed to the backend of a judge: built the interpreter for a special language used by the users of the judge.

Projects

WallWars wallwars.net

React, Node.js, WebSocket, MongoDB, Heroku, C++, wasm | A 2-player online board game. It has many of the features of online chess sites, like timers, authentication, watching replays, player rankings, a responsive design, puzzles, and an AI player.