

DHRUV SOMANI

(+91) 99786 51100 | d.somani@iitg.ac.in | [linkedin/in/somani-dhruv](https://www.linkedin.com/in/somani-dhruv) | [github/dhruvsomani](https://github.com/dhruvsomani)

EDUCATION

Indian Institute of Technology, Guwahati

2020 - Expected 2024

B. Tech. in Computer Science and Engineering

CPI: 9.14/10.0

Minor in Robotics and Artificial Intelligence

Key Courses: Design and Analysis of Algorithms, Probability Theory and Random Processes, Game Theory and Economics, Operating Systems, Computer Networks, DBMS, Machine Learning

Awarded 6 AS “Outstanding” grades for exceptional performances in core courses including Software Engineering, Computing Lab, (Mathematical) Optimization and Computational Number Theory and Cryptography, usually given to the best performer of the batch.

EXPERIENCE

Systems Intern

May - July 2023

Quadeye Securities LLP

C++

- Developed an exhaustive testing tool for different order-related scenarios as a state-machine simulator.
- Developed a mock live exchange with a protocol-agnostic architecture enabling seamless integration with multiple communication protocols as a part of the test suite to ensure the faultless operation of the internal API and connector.
- Conducted comprehensive code benchmarking, identified bottlenecks and optimized the codebase to significantly reduce latency and enhance overall performance.

Web Developer

June 2021 - March 2023

Students' Web Committee, IIT Guwahati

Python, Django, SQL, JavaScript

- Developed the hostel application portal in Django to digitize the institute's hostel application and allotment process, which 2500+ students and the administrative body have used.
- Wrote the major portion of the website's backend with special emphasis on writing reusable code.
- Acted as the point of contact with the Hostel Affairs Board to understand their requirements and issues.

Software Engineer

October - December 2018

Google Code-in

Python

- Selected as a **finalist** out of 3000+ programmers for exceptional contributions to open-source software.
- Worked in a collaborative environment and contributed to *coala* - a language analysis toolkit.
- Added multiple features such as template autogeneration for a static web server, recursive directory traversal for command-line utilities, unit tests and improved overall code quality.

HONORS AND AWARDS

- Represented India and won the **Bronze Medal** at the **Asia-Pacific Informatics Olympiad**, 2018.
- Ranked in the national top 30 with a perfect score in the Indian National Olympiad in Informatics in 2018 and 2019 and was invited to attend the International Olympiad in Informatics Training Camp twice. Ranked 8th at IOITC 2019.
- Selected as a **Reliance Foundation Scholar** in **AI** and **CS**, 2020.
- Secured the 26th Rank at the **ICPC Amritapuri Regionals**, 2021.
- Among the top 30 in the Regional Mathematical Olympiad and was selected to take the Indian National Mathematics Olympiad, twice.
- Secured the 1st position at the Pi Quiz Nationals based on trading, game theory and economics organized at the **Indian Institute of Management Indore**.
- Classified as a **Master** on Codeforces with a maximum rating of 2186.
- Global Ranks 27, 43 & 77, Google Kick Start, 2021

TECHNICAL SKILLS

Programming Languages	C, C++, Python, MATLAB
Data Science	pandas, NumPy, matplotlib, scikit-learn
Development	Django, MySQL, HTML, CSS, JavaScript

KEY PROJECTS

Competition Management System *Python, Tkinter, Django, SQL, JavaScript*

- Successfully developed and deployed a competition management system in Python with a user-friendly Tkinter GUI and SQLite integration to manage participants, teams and scores.
- Also created a Django project to host the real-time leaderboard online.

Sliding Puzzle Solver *C++*

- Developed an 8-sliding puzzle solver using an A* best-first search algorithm.
- Analyzed and experimented with many heuristic functions with various parameters and features to find an optimal one.