# Swapnil Negi

Senior Software Engineer Newton School

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## Education -

2016-2020 B.TECH. Major in ECE, Minor in CSE **IIT Roorkee** CGPA: 8.618 / 10

## Links –

swapnil07 Linkedin: Github: swap-nil7 ICPCID: memeset Codechef: swapnil07 Codeforces: swapnil07

## Ratings -

Codechef: Max 2276 (Orange, 6-star) Codeforces: Max 2131 (Orange, Master)

## Skills —

### **Programming languages**

C/C++, Python, Java, Javascript, Typescript, C#

Libraries & Frameworks Django, Flask, React

Software & Tools AWS, Git, Linux, Vim, Docker

### Coursework

Data Structures and Algorithms **Object Oriented Programming Operating Systems Computer Networks Computer Architecture** Database Management Systems Probability Theory **Discrete Structures** 

## Reference -

Ben Hilburn President, The GNU Radio Foundation, Inc. Project Lead, GNU Radio Email: bhilburn@gnuradio.org Phone: 703.606.3326

### **Experience**

#### Newton School | Senior Sofware Engineer

Feb'21 - Present • Led the ideation and development of Newton Edge, a DSA learning platform with AI-based real time doubt solving in lectures and coding problems via chat interface. We reached an overall accuracy of 91% in all chat responses.

• Built an AI-powered mock interview product to automate DSA mock interviews. This involved assessment of coding questions subjectively and evaluating voicebased responses for theoretical questions.

• Built the entire backend architecture of Topic Tree, a learning management system that automates creation of lectures, assignments, in-class quizzes, contests, etc. It saves >50 human hours of effort per day with 0 inefficiencies.

• Automated the referral process by rating the students through their performance in assignments and mock interviews, and the companies through their job description and CTC.

 Optimised the APIs for CodeRush, a programming contest with >10k concurrent participants, to bring down the response time of certain APIs by >75%.

Newton School | DSA Problem Setting Team Lead Nov'19 - Present · Create and review competitive programming problems for monthly contest CodeRush (>6k active participants), and annual contest CodeRush-X (>20k active participants).

Microsoft, Azure Stack Edge | Software Engineer July'20 - Present Built the cloud management for the Kubernetes and the IoT services of the Azure Stack Edge device.

• Built the landing experience for the cloud management of Edge services on Azure Stack Edge portal extension.

Microsoft, Azure Portal | Software Engineer Intern May'19 - July'19 Built an interactive web-portal for analyzing user flows, based on logged telemetry, in any Azure Portal Extension. The product could figure out multiple under-utilised product flows, and the major drop-off experiences in the most intended flows.

GNU Radio | Google Summer of Code Student [Link] Apr'18 - Aug'18 • Made the tool, gr-modtool, extensible by rewriting it as a plug-in architecture and making it python version independent.

• Enhanced the utility of the tool by exposing an API and creating a GUI for the tool.

### **Projects**

### Clink | Co-Founder [Link]

lun'23 - Jan'24

 Built the backend architecture of an interest based social media mobile application that supports all necessary functionalities including feed, messaging, profile, search, in-app and push notifications, etc.

### **GNU Radio Organisation | Member**

Feb'18 - Present

- Responsible for maintaining gr-modtool, a part of the GNU Radio project.
- Attended FOSDEM 2019, Brussels to represent GNU Radio.

### Achievements/Awards

### ICPC Ranks 2018-2020:

- 21st ICPC Asia West Continental Finals 2020
- 10th ICPC Online Qualifier for all Indian Regionals
- 16th Amritapuri Regionals 2019
- 8th Gwalior Regionals 2018

### **Contest Ranks:**

- Global Rank 28 (India Rank 10) in August Cook-Off Division 1, 2019
- All India Rank 5 in AIsing Programming Contest 2020, AtCoder
- All India Rank 18 in CodeAgon, 2019
- All India Rank 18 in Goldman Sachs Quantify, 2019
- Global Rank 135 (India Rank 47) in Google Kickstart Round E, 2019
- Global Rank 409 in Facebook HackerCup Round 2, 2018