

Apurva N Saraogi

https://apurva.xyz

apurva.saraogi9@gmail.com
linkedin.com/in/apurva9

EDUCATION

Indian Institute of Technology, Guwahati

Bachelor of Technology in Computer Science and Engineering, CGPA 8.25/10

Guwahati, India

July 2016 - June 2020

EXPERIENCE

- **D. E. Shaw & Co.** Hyderabad, India
Member of Technical - Discretionary Tech June 2020 - Present
 - Closely worked with traders in **three applications**, delivered powerful backend and frontend.
 - Converted an entire process to make it **4 times more faster** using parallel processing and other optimizations.
- **Samsung R&D Institute India** Bangalore, India
Software Developer Intern - Networks May 2019 - July 2019
 - Devised & created a **log pattern extractor** to process huge logs from network towers to **find abnormal behavior**.
 - **Classified** the logs using **K-means** based on factors such as signal strength, delay, etc. to classify message sequences and isolate unusual instances. Solved the problem of **log dropping** by filling the missing logs using **N-grams**.
 - Developed an easy to use **web interface** for using the tool. Tested the tool on log files from various network operators, and the tool was able to process **2 million lines** under **30 minutes**, accurately highlighting the abnormalities.
- **Inter IIT Sports Meet** Guwahati, India
Software Developer Intern Aug 2018 - Dec 2018
 - Built a platform providing **Live Scores** and commentary along with a **personalized player portal** capturing the digital presence of the player in the meet, displaying their schedule, medals, and results at a single location.
 - Enhanced the meet experience by linking photos of the player to their individual pages using **facial recognition**.
 - Deployed a **load balancer** on top of **distributed content delivery network** to handle the traffic of **564K views**.
- **The Labs** Guwahati, India
B. Tech Project under Dr. Ashish Anand, Associate Professor, Dept. of CSE, IIT Guwahati Nov 2019 - July 2020
 - Developed an **online programming lab** conduction platform allowing systematic evaluation (was used in **CS110**)
 - Extended to an **online examination platform** allowing various types of examinations due to **COVID-19**. It was used to take end semester examination of **7 courses** each having around **800 students**

ACHIEVEMENTS

- **Google Hashcode 2020**: Secured **AIR 2** and **Global Rank 148** in the online qualification round.
- **Smart India Hackathon 2020**: Qualified for the grand finale.
- **ACM ICPC 2019-20**: Secured rank **266** in the Online Round. Qualified for **Amritapuri Regionals**.
- **Indo Singapore Hackathon 2018**: Selected in **top 20** teams to represent India, among **10,000 applying teams**.
- **JEE Advanced 2016**: Secured All India Rank **633** (percentile **99.68%**) among **0.2 million** candidates.
- **JEE Main 2016**: Secured All India Percentile Score of **99.98%** out of **1.2 million** candidates.

PROJECTS

- **Verbose The Indexer**: Developed a desktop application that searches local files for text using **indexing**, ranked the results using **TF-IDF** and **auto-corrected** the queries.
- **Compiler**: Created a compiler for **C like language** supporting recursive calls, short-circuit evaluation, loops, and arrays.
- **Smart Classroom**: Developed **IOT** based solution for Automated Classroom, Smart Glove and Proxy Detector.
- **Shared Digital Identity Verification**: Attempted to solve the problem via machine learning based on **Keystroke dynamics**. Created a plugin that could be integrated with websites.
- **OMR Scanner**: Developed using OpenCV to boost the evaluation process of Technothon's OMRs.
- **Smart Faculty Portal**: Developed a CMS for faculties, displayed important email notifications, automated initial data import using web scraping.

PROGRAMMING SKILLS

Languages: Python, JavaScript, C++, SQL, NoSQL

Technologies: Django, React, Laravel, Flutter, Docker, Git

RESPONSIBILITIES

- **Head(Technical & Events), CSEA, IIT Guwahati**: the student body of CSE department (Apr 2019 - Apr 2020)
- **Web Operations Head, Techniche**: the annual techno-management fest of IIT Guwahati (Sep 2018 - Sep 2019)
- **Chief Organizer & Online Head, Technothon**: the international school championship. (Sep 2017 - Sep 2018)