

Asish Kumar Mandoi

✉ akmandoi@iitk.ac.in
in Asish Mandoi

Junior Undergraduate, Electrical Engineering
Indian Institute of Technology Kanpur

☎ +91-8144106507
🌐 AsishMandoi

EDUCATION

Year	Degree/Certificate	Institute	CPI/%
2019 - 2023	B.Tech in Electrical Engineering	Indian Institute of Technology Kanpur, India	7.1/10
2019	Standard XII (CBSE Board)	MBS Public School, Bhubaneswar, India	93.8%
2017	Standard X (CBSE Board)	DAV Public School, Bhubaneswar, India	10/10

PROJECTS

IITK-Coin

May '21 – Jul '21

Backend of a pseudo-currency system to be used in the IITK campus | Programming Club, IIT Kanpur

Report [↗](#), GitHub [↗](#)

- Developed the backend from the ground up using Go programming language and SQLite for database management
- Secured the endpoints by incorporating user authorization using JWTs, and built an additional layer of protection against hacks by employing the Bcrypt algorithm to hash and salt passwords
- Added a transaction tracking functionality for administrators and implemented an OTP based confirmation system
- Increased server efficiency by handling up to 300 concurrent transactions per second by utilizing the WAL journal mode in SQLite and Redis for caching

Algorithms based on Maths

Apr '21 – Jun '21

Stamatics, IIT Kanpur

- Analyzed, implemented, and practiced algorithms like (efficient) prime factorization, calculating factorials of large numbers, and polynomial hashing in C++

Data Structures and Abstract Data Types

Jan '20 – Jul '20

Association of Computing Activities, IIT Kanpur

- Solved 200+ programming questions by applying data structures like sets, maps, stacks, queues, from the C++ STL
- Participated in 50+ programming contests and improved Codeforces rating by ~500

VIRTUAL EXPERIENCE

Crio Winter of Doing

Jan '21 – Feb '21

Externship program for developers | Crio.Do

CWOD [↗](#)

- Learned and implemented introductory concepts of HTTP, REST API, AWS, Linux, Git, HTML, CSS, JavaScript
- Launched an instance of Amazon EC2, deployed the backend server of the QEats (dummy) android app, and connected the app to its backend server
- Sorted cities based on the popularity of the QEats android app by analyzing 10k+ logs using Linux shell techniques
- Deployed the frontend and the backend of my Personal Portfolio [↗](#) web application; Fetched my repository descriptions in real-time by integrating this application with my GitHub account
- Among the final 1200 out of 10,000+ total applicants to clear the coding round and reach Stage-2B

TECHNICAL SKILLS

Programming Languages: C, C++, Python, Go, MATLAB, HTML5, CSS3, JavaScript, PHP

Technologies/Frameworks: Node.js, Express, MySQL, SQLite, Linux shell utilities, Git, \LaTeX , Qiskit, AutoCAD

ACHIEVEMENTS & HONOURS

Programming Achievements

- Globally ranked 1055 in Google Kick Start Round D 2021 Jul '21
- Globally ranked 976 in Google Kick Start Round H 2020 Nov '20
- Globally ranked 2769 out of 13820 contestants in Round 1 of Facebook Hacker Cup 2020 Aug '20

Scholastic Achievements

- Secured All India Rank 3592 in JEE-Advanced out of 220,000+ shortlisted candidates 2019
- Achieved All India Rank 7480 in JEE-Main out of 0.9 million+ candidates 2019
- Among National Top 300 to be selected for Indian National Chemistry Olympiad [↗](#), HBCSE 2018-19
- Secured All India Rank 322 in KVPY [↗](#) out of 50,000+ candidates and selected for KVPY Fellowship by Govt. of India, and IISc Bangalore, one of the most prestigious science scholarships in India 2017

MISCELLANEOUS

- Actively participate in Competitive Programming contests [max. rating 1468 on Codeforces] CF-profile [↗](#)
- Performed analysis on a house prediction dataset and applied a Machine Learning model to predict costs of houses
- Secured an A* with 99.5% marks in the course - Manufacturing Processes II for good teamwork and creativity
- Served as an NCC cadet at IIT Kanpur for a year

RELEVANT COURSEWORK

Fundamentals of Computing
Signals, Systems & Networks

Probability and Statistics
Control Systems

Intro to Machine Learning^[i] [↗](#)
Partial Differential Equations

A*: grade for exceptional performance, [i]: online certified, [hyperlinked at appropriate places]