Asish Kumar Mandoi

Junior Undergraduate, Electrical Engineering
Indian Institute of Technology Kanpur

✉ luckyasish13@gmail.com
in Asish Mandoi
📞 +91-8144106507
⬡ AsishMandoi

Education

Year	Degree/Certificate	Institute	CPI/%
2019 - 2023	B.Tech in Electrical Engineering	Indian Institute of Technology Kanpur, India	7.3/10
2019	Standard XII (CBSE Board)	MBS Public School, Bhubaneswar, India	93.8%
2017	Standard X (CBSE Board)	DAV Public School, Bhubaneswar, India	10/10

Achievements & Honours

Programming Achievements
- **Google Kickstart: Globally ranked 1636, 1055, 976** in Round E 2021, Round D 2021, Round H 2020 — *2020, 2021*
- **Facebook Hacker Cup: Globally ranked 1967, 2769** in Round-1 out of 34000+ total contestants — *2020, 2021*

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 — *2017*
  Govt. of India, and IISc Bangalore, one of the most prestigious science scholarships in India

Projects & Experiences

IITK-Coin — *May '21 – Jul '21*
Backend of a pseudo-currency system to be used in the IITK campus | Programming Club, IIT Kanpur — *GitHub ⬀ , DockerHub ⬀*
- **Developed the backend** from the ground up using **Go** programming language and **SQLite** for database management
- **Secured** the endpoints by incorporating user authorization using **JWT**s, 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

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**

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++

String Theory for Beginners — *May '20 – Jul '20*
Science Coffee House IITK ⬀ , mentored by Gurmeet Singh, Ph.D. student at IIT Kanpur
- Acquired a qualitative understanding of early modern physics and **String Theory** by doing a thorough study of the book - *String Theory for Dummies* by Andrew Z. Jones and participating in weekly discussions with the mentor
- Researched and performed detailed analysis on exciting scientific topics like **blackhole kinematics** ⬀
- **Contributed to the final report** ⬀ for the project describing String Theory in a nutshell Report

Technical Skills

Programming Languages: C, C++, Python, Go, MATLAB, HTML5, CSS3, JavaScript, PHP
Technologies/Frameworks: Node.js, Express, MySQL, SQLite, Redis, Bash, Git, Docker, LaTeX, Qiskit, AutoCAD

Miscellaneous

- Implemented **Grover Search** algorithm by designing a **Quantum Circuit** using **Qiskit** library in Python — *GitHub ⬀*
- Actively participate in **Competitive Programming** contests [max. rating 1468 on Codeforces] — *CF-profile ⬀*
- Secured an **A*** with **99.5%** marks in the course - Manufacturing Processes II for **good teamwork and creativity**
- Served as an **National Cadet Corps (NCC) cadet** at IIT Kanpur for a year

Relevant Coursework

Quantum Computing[a]	Data Structures and Algorithms[a]	Intro to Machine Learning[i] ⬀
Fundamentals of Computing	Probability and Statistics	Language & Society

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