AYUSH RAJ

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EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2026	M.TECH Dual Degree 5Y	Indian Institute of Technology, Kharagpur	7.31 / 10
2020	Class XII, BSEB	D.C Inter College, S.B.Pur	88.2%
2018	Class X, BSEB	+2 High School, S.B.Pur	80.4%

SKILLS AND EXPERTISE

- **Programming Languages**: Java | SQL | C | HTML | CSS | JavaScript | Python | C++ (Basic)
- **Software/Tools**: JDBC | MySQL | Visual Studio Code | GitHub
- **Libraries/Frameworks**: Java Swing | Java AWT | Java Standard Library

COURSEWORK INFORMATION

Programming and Data Structures | Object Oriented Programming | File Organization and Database Management Systems
Probability and Statistics | Economics | Basic Electronics | Electrical Technology | Strategic Planning

PROJECTS

ATM Interfaces and Operations | Java and SQL | Self Project   **[Jun '24]**
- Developed intuitive UIs using **Java Swing framework**, incorporating interactive buttons, text fields, and labels
- Implemented **secure PIN-based authentication**, ensuring user accounts are protected against unauthorized access
- Managed and secured user data, transactions, and accounts using robust **SQL database**, including **MySQL**

Search and Download Images (website) | API and JavaScript | Self Project   **[Apr '23]**
- Integrated the Pexels **API** for image search and retrieval, managing **authentication** and **data parsing**
- Enabled **keyword-based image search**, initiated by pressing the "Enter" key for enhanced user experience
- Implemented **lightbox** feature for image **preview** and **download**, showcasing the image and photographer's name

Snake Game Web Application | JavaScript | Self Project   **[Dec '22]**
- Established accurate **collision detection** with walls and the snake itself ensuring proper game termination
- Introduced **random food placement** on game board, significantly enriching gameplay diversity and excitement
- Enabled snake **control via arrow keys**, implementing constraints to **prevent immediate reverse** direction
- Implemented a **real-time score** display, instantly updating upon food collection, enhancing gameplay experience

My Portfolio (Website) | HTML and CSS | Self Project   **[Jun '22]**
- Developed a **responsive hamburger menu** for intuitive navigation on mobile devices, enhance user accessibility
- Implemented **JavaScript** functions for menu **toggling** and **smooth scrolling** to the top, improve user experience
- Presented projects with detailed descriptions and **live demo links** that **open in new tabs** for convenient access

AWARDS AND ACHIEVEMENTS

- Solved **600+** Data Structures and Algorithm problems on platforms like LeetCode, CodeChef, GFG and Codeforces
- Achieved distinction in the **Pre-Regional Mathematics Olympiad** 2019, ranking among the **top 1920** nationally
- Received the prestigious **NTSE Scholarship** from NCERT, Government of India, recognizing academic excellence
- Secured **second** place in **state-level Election Knowledge Competition** 2017, by the **Election Commission of India**
- Won **second** place in **Ore-acle Quest** at MINARE 2024, hosted by NIT Rourkela's Mining Engineering Society

CERTIFICATIONS

Data Structures and Algorithms with Java | Alpha | Apna College   **[May '23]**
- Completed the Alpha (**DSA with Java**) course at Apna College, proficient in data structures and algorithms
- Completed a **16-week intensive DSA program**, mastering topics such as dp, linked lists, binary trees, and graphs

POSITIONS OF RESPONSIBILITY

Coordinator Students' Welfare | Radhakrishnan Hall of Residence   **[Aug '23 - Apr '24]**
- Served on the **Institute Welfare Subcommittee**, advocating for **600+ boarders** at Radhakrishnan Hall of Residence
- Led a team of **39 wing representatives** to enhance mental illness surveillance and awareness at a micro level
- Proactive **Hall Council Member** driving initiatives to improve resident **welfare** and **strengthen community bonds**

EXTRA CURRICULAR ACTIVITIES

- Proudly represented my school in prestigious **quiz** and **essay competitions** at district, state, and **national** levels
- Developed mathematics problem sets for primary school students as a **volunteer** with the **National Service Scheme**