






Raghav Agarwal

 GitHub  LinkedIn  Portfolio  raghavagarwal3618@gmail.com  +91-9897534202

EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech.	University of Petroleum, Dehradun	7.50 (Current)	2022-Present
12th	St. Jude's School/ICSE Board	81.75%	2022
10th	St. Jude's School/ICSE Board	90.20%	2020

INTERNSHIP

- **IBM** June 2025 - July 2025
Software Developer Intern Remote
 - Built and deployed a Smart Grid Monitoring System using Node.js, Express, MongoDB, and EJS, hosted on AWS EC2 with MongoDB Atlas for scalability.
 - Simulated real-time sensor data with node-cron and triggered 5,000+ alerts, implemented debounced email alerts using Nodemailer to avoid bulk failure.
 - Implemented secure authentication with Passport.js and validation via Joi, improved code modularity by 60% using MVC architecture and Express router.
 - Includes features such as CSV export, alert filtering, and acknowledgment workflow with a responsive UI using Bootstrap and Chart.js.

PROJECTS

- **Lodgr: Full-Stack Airbnb-like Platform** Jan. 2025 - Feb. 2025
Personal Project Github
 - Built a full-stack web application mimicking Airbnb, with features like property listings, user authentication via Passport.js, and user reviews.
 - Developed using MongoDB, Express, Node.js, Bootstrap, and EJS with MVC architecture, Express Router, and secure API routing using middlewares.
 - Implemented client- and server-side validation with Joi, session handling with original URL redirection, and deployed via MongoDB Atlas and Render with Cloudinary for image storage.
- **AlgoVista: Visualization of Pathfinding and Sorting Algorithms** Sept. 2024 - Nov. 2024
Dr. Ambika Aggarwal/Minor-1/UPES Github
 - Built an interactive platform for visualizing various pathfinding and sorting algorithms, helping users understand algorithmic efficiency and behavior.
 - Developed the frontend using HTML, CSS, and JavaScript, and implemented core algorithms in Java.
 - Enhanced the learning experience by providing real-time comparisons of different algorithms through dynamic visualizations.

TECHNICAL SKILLS

- **Programming Languages:** Java, JavaScript
- **Technologies / Frameworks / Libraries:** Node.js, Express, Bootstrap, Passport.js, EJS, Joi
- **Databases:** MongoDB, MySQL
- **Cloud & DevOps:** AWS, Docker, Git, GitHub
- **CS Fundamentals:** Data Structures & Algorithms (DSA), Object-Oriented Programming (OOPs), Operating Systems (OS), Database Management Systems (DBMS), Computer Networks (DCN), System Design
- **Soft Skills:** Communication, Leadership & Teamwork, Problem Solving, Adaptability
- **Miscellaneous (Familiar):** React, Typescript, Python, Supabase, Postgresql, shadcn/UI, Tailwind CSS, Prometheus, Grafana, Kubernetes, Oracle VirtualBox, Cisco Packet Tracer

CERTIFICATIONS

- AWS Cloud Practitioner Essentials
- Parivartan Social Foundation

POSITIONS OF RESPONSIBILITY

- **Development Team Lead**, IBM June 2025 - July 2025
- **Teaching Assistant**, Apna College Platform Aug. 2023 - Nov. 2023
- **Team Lead**, Parivartan Social Foundation June 2023 - Jul. 2023
- **Technical Committee Member**, Association for Computing Machinery UPES Sept 2022 - March. 2023

ACCOMPLISHMENTS AND RECOGNITION

• Secured 16th rank in AWS Innovate Week JAM Coding Contest	2025
• Achieved a top 2% rank (37th out of 1,700) in the AMCAT examination.	2024
• 1st Runner up in ICSE Regional Level Science Exhibition	2018
• Qualified ICSE Regional Level Science Exhibition	2017
