

Yash Agarwal

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EDUCATION

Graphic Era Hill University

B.Tech. in Computer Science & Engineering; Honors in ML & AI

Uttarakhand, India

Aug 2023 – Present

PROJECTS

Interactive 3D Resume Builder

Feb 2025 – May 2025

- **Tech Stack:** Java, Spring Boot, MongoDB, REST APIs, WebSockets, React, Three.js
- Designed and developed the backend microservice using **Spring Boot**, exposing secure **RESTful APIs** for creating, updating, and retrieving user resume data.
- Utilized **Spring Data MongoDB** for efficient data persistence and implemented real-time collaboration features using WebSockets to allow seamless multi-user editing.
- **Outcome:** Delivered a highly interactive and personalized resume experience, demonstrating proficiency in building scalable, full-stack Java applications.

Wikipedia Path Finder

Oct 2024 – Dec 2024

- **Tech Stack:** Python, Flask, Redis, MongoDB, Docker
- Developed a backend service with a **RESTful API** to trace the traversal path from any Wikipedia page to the 'Philosophy' page, handling loops and dead-ends.
- Integrated Redis for caching frequent paths and **MongoDB** for result storage, optimizing pathfinding and parsing runtime by approximately 80%.
- **Outcome:** Deployed the service as a scalable, containerized application using Docker, ensuring faster response times under load.

IoT Automatic Plant Watering System

Jun 2025 – Jul 2025

- **Tech Stack:** C++, ESP8266, Firebase, ESPAsyncWebServer
- Engineered a cloud-integrated backend on Firebase (**NoSQL database**) to manage real-time sensor data from an IoT device.
- Designed and built an autonomous system to monitor soil moisture and dispense water, demonstrating experience with data persistence and remote management.
- **Outcome:** Improved water conservation and plant health, achieving a 20% increase in watering efficiency.

EXPERIENCE

Web Developer Intern

May 2025 – July 2025

Dehradun, Uttarakhand

Arterns Technologies Private Limited

- Contributed to a full-stack Applicant Tracking System (ATS) by **collaborating with frontend developers to integrate backend services** and consume **REST APIs** for **menticate.com**.
- Integrated a third-party real-time chat API and developed a site-wide dark theme to enhance user experience and engagement.
- Worked in an **Agile environment**, participating in sprints and code reviews, which helped reduce project timeline overruns by 20% by proactively identifying risks.

TECHNICAL SKILLS

Backend Development: Java, Spring Boot, Spring MVC, RESTful APIs, Hibernate/JPA, Python, Node.js

Databases: MySQL, PostgreSQL, MongoDB, Firebase, Redis

Core Concepts: Object-Oriented Programming (OOP), Collections, Multithreading, Exception Handling, Data Structures & Algorithms

Developer Tools: Git, GitHub, Docker, Postman, JUnit

Frontend: JavaScript, TypeScript, React, Next.js, HTML/CSS

SOFT SKILLS

Problem-Solving, Teamwork & Collaboration, Effective Communication, Adaptability, Quick Learner, Attention to Detail