Yash Agarwal

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EDUCATION

Graphic Era Hill University   Uttarakhand, India
B.Tech. in Computer Science & Engineering; Honors in ML & AI   *Expected Aug 2027*

EXPERIENCE

Web Developer Intern   July 2024 – Dec 2024
Arterns Technologies Private Limited   *Dehradun, Uttarakhand*

- Engineered and developed a full-stack Applicant Tracking System (ATS) and student assessment module for **menticate.com**, improving operational efficiency.
- Enhanced user experience and engagement by integrating a real-time chat API and implementing a site-wide dark theme, demonstrating an interest in UI/UX design.
- Accelerated global accessibility for **vedichealings.com** by implementing the i18next library, successfully launching full Spanish language support.
- Reduced project timeline overruns by 20% by proactively identifying risks and implementing mitigation strategies in a collaborative Agile team environment.

PROJECTS

Interactive 3D Resume Builder   *Feb 2025 – May 2025*

- **Tech Stack:** React, Three.js, MongoDB, Spring Boot (Java), WebSockets, JWT
- Architected a scalable, full-stack application leveraging object-oriented design principles in Spring Boot to visualize resume data in an immersive 3D environment.
- Implemented secure, real-time collaboration features using WebSockets and JWT authentication, showcasing strong troubleshooting and debugging skills to ensure seamless multi-user editing.
- **Outcome:** Delivered an innovative user interface and experience, providing a novel alternative to traditional formats and demonstrating creative problem-solving.

Wikipedia Path Finder   *Oct 2024 – Dec 2024*

- **Tech Stack:** Python, Flask, BeautifulSoup, Redis, MongoDB, Docker
- Developed a performance-oriented backend service to trace traversal paths on Wikipedia, implementing robust logic to handle loops and dead-ends during network data retrieval.
- Designed a scalable architecture using Docker for containerization and integrated Redis caching to minimize latency and optimize performance for frequent requests.
- **Outcome:** Achieved an 80% reduction in pathfinding runtime, significantly lowering server load and demonstrating strong programming skills inclined towards optimization.

IoT Automatic Plant Watering System   *Jun 2025 – Jul 2025*

- **Tech Stack:** ESP8266, Firebase, ESPAsyncWebServer, C++
- Designed and developed an autonomous embedded system to monitor and control hardware, showcasing fundamentals of system-level programming and device interaction.
- Engineered a secure web portal for Wi-Fi configuration and logged real-time telemetry data to a cloud backend (Firebase) using token-based authentication (HTTPS).
- **Outcome:** Increased watering efficiency by 20%, demonstrating skills in building reliable systems that integrate hardware, software, and cloud platforms.

CORE COMPETENCIES & TECHNICAL SKILLS

Languages: Python, Java, C++, JavaScript, TypeScript
CS Fundamentals: Data Structures, Algorithms, Object-Oriented Design (OOD), Operating Systems Concepts
Networking Concepts: TCP/IP Fundamentals, HTTP/HTTPS, REST APIs
Frameworks & Libraries: React, Next.js, Node.js, Flask, Spring Boot, TensorFlow, Keras
Databases & Platforms: MongoDB, Firebase, Redis, Git, Docker, Postman

SOFT SKILLS

Creative Problem-solving, Agile Collaboration, Troubleshooting & Debugging, Teamwork, Communication