Yash Agarwal

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EDUCATION

Graphic Era Hill University   Uttarakhand, India
B.Tech. in Computer Science & Engineering; Honors in ML & AI   *Aug 2023 – Present*

EXPERIENCE

Web Developer Intern   May 2025 – July 2025
Arterns Technologies Private Limited   *Dehradun, Uttarakhand*

– Engineered a scalable full-stack Applicant Tracking System (ATS) and student assessment module for **menticate.com**, improving data processing efficiency.
– Leveraged AI-powered tools like GitHub Copilot for code generation and debugging, accelerating development cycles and enhancing code quality.
– Developed and integrated backend services for a real-time chat API and implemented a site-wide dark theme, boosting user engagement.
– Implemented the i18next library in the **vedichealings.com** Next.js codebase, launching full Spanish language support to expand market reach.
– Reduced project timeline overruns by 20% by proactively identifying risks and implementing mitigation strategies within an Agile development environment.

PROJECTS

Wikipedia Path Finder   *Oct 2024 – Dec 2024*

– **Tech Stack:** Python, Flask, Redis, MongoDB, Docker, BeautifulSoup
– Developed a high-performance backend service to trace the traversal path from any Wikipedia page to the 'Philosophy' page, handling cycles and dead-ends efficiently.
– Integrated Redis for caching frequent paths, reducing average response times by over 80% and significantly lowering database load.
– **Outcome:** Containerized the application with Docker for seamless deployment and scalability, optimizing pathfinding runtime and improving overall system resilience.

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

– **Tech Stack:** Java, Spring Boot, React, Three.js, MongoDB, WebSockets
– Architected a full-stack application with a Java-based Spring Boot backend to visualize resume data in an immersive 3D environment.
– Implemented secure, stateless JWT authentication and utilized WebSockets to enable real-time collaborative editing for a seamless multi-user experience.
– **Outcome:** Delivered a novel and highly interactive resume experience, demonstrating proficiency in building complex, stateful web applications.

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

– **Tech Stack:** C++, ESP8266, Firebase, ESPAsyncWebServer
– Engineered an autonomous IoT system to stream real-time soil moisture telemetry to a Firebase cloud backend, triggering automated watering cycles.
– Developed a secure web portal for initial Wi-Fi configuration and implemented token-based authentication for remote management and data logging.
– **Outcome:** Improved water conservation and plant health, achieving a 20% increase in watering efficiency and creating a scalable data pipeline for sensor data.

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, TypeScript, C++
Backend Frameworks: Spring Boot, Flask, Node.js
Frontend Frameworks: React, Next.js
Databases & Storage: MongoDB, Firebase, Redis
Developer Tools & Platforms: Git, Docker, Postman, GitHub Copilot, BeautifulSoup
Machine Learning: TensorFlow, Keras, scikit-learn, Matplotlib