

# Yash Agarwal

+91-90276-01476 | 190e785@gmail.com | [LinkedIn](#) | [GitHub](#)

## EDUCATION

<b>Graphic Era Hill University</b> <i>B.Tech. in Computer Science &amp; Engineering; Honors in ML &amp; AI</i>	Uttarakhand, India Aug 2023 – Present
-------------------------------------------------------------------------------------------------------------------	------------------------------------------

## EXPERIENCE

<b>Web Developer Intern</b> <i>Arterns Technologies Private Limited</i>	May 2025 – July 2025 Dehradun, Uttarakhand
<ul style="list-style-type: none"><li>Engineered a full-stack Applicant Tracking System (ATS) and student assessment module, focusing on efficient data management and retrieval for <b>menticate.com</b>.</li><li>Designed and integrated a real-time chat API, improving user interaction and data flow within the platform.</li><li>Implemented internationalization (i18n) for <b>vedichealings.com</b>, demonstrating attention to detail and ability to scale applications for diverse user bases.</li><li>Operated within an Agile framework, contributing to a 20% reduction in project timeline overruns by proactively identifying and mitigating development risks.</li></ul>	

## PROJECTS

<b>Graph-Based Pathfinding &amp; Optimization Engine</b>	Oct 2024 – Dec 2024
<ul style="list-style-type: none"><li><b>Tech Stack:</b> Python, Flask, BeautifulSoup, Redis, MongoDB, Docker</li><li>Developed a backend service to solve the "Philosophy Game" by modeling Wikipedia as a graph and implementing a recursive traversal algorithm to find paths between nodes.</li><li>Engineered a robust loop and dead-end detection system to handle complex edge cases in the data graph, ensuring reliable path discovery.</li><li><b>Outcome:</b> Optimized pathfinding runtime by over 80% by integrating a Redis caching layer for frequently accessed paths, demonstrating a strong grasp of performance and scalability.</li></ul>	

<b>Interactive Data Visualization &amp; Collaboration Platform</b>	Feb 2025 – May 2025
<ul style="list-style-type: none"><li><b>Tech Stack:</b> React, Three.js, Spring Boot, MongoDB, WebSockets, JWT</li><li>Architected a full-stack application to transform structured resume data into an immersive 3D environment, prototyping a novel method for user-data interaction.</li><li>Built a real-time collaborative editing feature using WebSockets, allowing multiple users to interact and modify the underlying data model simultaneously.</li><li><b>Outcome:</b> Delivered a unique, proof-of-concept platform for personalized data representation, showcasing an experimental mindset and strong software engineering skills.</li></ul>	

<b>Real-Time Sensor Data Pipeline &amp; IoT System</b>	Jun 2025 – Jul 2025
<ul style="list-style-type: none"><li><b>Tech Stack:</b> C++, ESP8266, Firebase, ESPAsyncWebServer</li><li>Designed and built an autonomous system to monitor and act on environmental data, demonstrating skills in rapid prototyping and hardware-software integration.</li><li>Implemented a cloud-based data ingestion pipeline, logging real-time sensor telemetry to Firebase for remote monitoring and analysis.</li><li><b>Outcome:</b> Created a fully functional proof-of-concept that improved resource efficiency, showcasing the ability to build end-to-end data-driven systems.</li></ul>	

## TECHNICAL SKILLS

<b>Languages:</b> Python, Java, JavaScript/TypeScript, C++
<b>AI/ML:</b> Scikit-learn, TensorFlow, Keras, Prompt Engineering. <i>Familiar with RAG Architectures, LangChain, LLM APIs.</i>
<b>Frameworks:</b> React, Next.js, Node.js, Flask, Spring Boot
<b>Databases &amp; Data Stores:</b> MongoDB, Firebase, Redis
<b>Developer Tools:</b> Git, Docker, Postman, BeautifulSoup, Agile Methodologies