## Adiroha Solutions

Throughout my intense 15-day internship with Bangalore's Adiroha Solutions, I was fully immersed in a dynamic learning environment designed with full-stack developers in mind. This vast program was painstakingly created to cover a wide range of front-end and back-end technologies, all of which are necessary to create innovative web applications that satisfy the demands of the modern digital world.

I learned the ins and outs of front-end programming throughout my internship, becoming proficient in HTML, CSS, and JavaScript. I also improved my knowledge of using frameworks like Bootstrap, which helped me create aesthetically gorgeous and incredibly user-friendly user interfaces that draw in and interact with users. I took an interesting detour into the world of server-side technologies on the back end, discovering the flexibility of programs like Node.js and Python Django. With practical experience, I was able to create strong server logic and effectively handle data, which set the foundation for the smooth operation of online applications.

As I became more acquainted with database systems like MySQL and MongoDB, database administration emerged as yet another essential component of my educational experience. I gained a thorough understanding of how to efficiently arrange and retrieve data, ensuring the best possible performance for web applications, by concentrating on data modeling and optimization.

Participating in project-based learning activities allowed me to apply my academic knowledge to real-world circumstances, which enhanced my internship experience. This practical approach strengthened my comprehension of development principles and gave me confidence in my talents as a full-stack developer.

My learning experience was greatly influenced by the advice and mentoring I received from seasoned experts. They were a great source of support, feedback, and insights as I overcame obstacles and adopted industry best practices.

As the internship drew to a close, I emerged with a comprehensive skill set and a wealth of practical experience, poised to embark on a fulfilling career journey in full-stack development. The experience at Adiroha Solutions has not only equipped me with the tools and knowledge necessary to excel in this field but has also instilled in me a deep passion and enthusiasm for continuous learning and growth.

## **Cordite Factory**

During my internship at the Cordite Factory, I underwent a transformative learning journey characterized by practical application, skill development, and professional growth. Engaging in hands-on projects allowed me to bridge the gap between theory and practice, showcasing how theoretical knowledge translates into real-world scenarios. My understanding of the dynamics of the area has been shaped by my exposure to industry practices inside the institute's setting, which has given me vital insights into professional techniques and standards. I developed a wide range of interpersonal and technical skills through mentoring and feedback from seasoned experts, which are crucial for success in my line of work.

My experience was further enhanced by networking opportunities, which allowed me to meet with peers and experts alike. Being completely engaged in project work allowed me to develop a sense of accountability and ownership in addition to making a significant contribution to the industry's efforts. Navigating professional etiquette and workplace norms deepened my understanding of professional conduct, while reflection and self-assessment prompted continuous personal and professional growth. Overall, my internship at Cordite Factory served as a pivotal learning experience, equipping me with the tools, knowledge, and confidence to embark on a successful career path. The intern project was about GC plant clarifier systems, the Plant Clarifier System Automation project stands as a groundbreaking initiative within material treatment, aimed at revolutionizing the operational efficiency and effectiveness of clarifier systems. These systems, pivotal in separating solids from liquids, are crucial components of material treatment plants. By implementing cutting-edge automation technology, the project seeks to minimize manual intervention while maximizing throughput, accuracy, and reliability. This is achieved through a comprehensive suite of automation components including sensors, actuators, controllers, and software applications. Sensors continuously monitor key parameters such as water levels, flow rates, and turbidity, while controllers interpret this data to execute precise control algorithms, optimizing system performance. Features like real-time monitoring, control optimization, and remote access empower operators to make informed decisions and swiftly address any issues. The integration with SCADA systems further enhances centralized control and visualization across the entire treatment plant. Ultimately, the benefits of this automation endeavor are manifold, encompassing improved process efficiency, reduced labor requirements, enhanced reliability, and a significant contribution to environmental sustainability through minimized resource consumption and emissions. In essence, the Plant Clarifier System Automation project represents a pioneering leap forward in material treatment technology, promising transformative advancements in operational excellence and environmental stewardship.

## **DIYA Edulabs**

I had the wonderful opportunity to give workshops at DIYA (Do It Yourself Academy) Labs during my enlightening three-month internship. These programs were created to empower female college students via experiential learning. These multi-location seminars were held as part of an Intel-sponsored Corporate Social Responsibility (CSR) program in association with DIYA Labs. These seminars' main goal was to teach participants how to create a line follower bot, a fundamental project in the fields of electronics and robotics.

My job throughout the workshops was to walk participants through every stage of the process of making a bot: from comprehending the fundamentals of robotics to putting the parts together and programming the machine to follow a preset course. The hands-on nature of the workshops allowed participants to actively engage with the material, fostering a deeper understanding of STEM concepts and cultivating essential problem-solving and technical skills.

In addition to conducting workshops, I also had the opportunity to contribute to projects within DIYA Labs. Working closely with the team, I collaborated on developing educational materials, designing workshop curriculums, and refining instructional content to enhance the learning experience for participants.

Beyond the technical aspects, the workshops served as a platform to promote inclusivity and diversity in STEM fields, particularly among women. By providing an inclusive learning environment and encouraging active participation, we aimed to inspire and empower participants to pursue careers in technology and innovation. Working closely with DIYA Labs and Intel, I gained invaluable experience in workshop facilitation, project management, and community engagement. Witnessing the enthusiasm and growth of participants throughout the workshops was incredibly rewarding, highlighting the transformative impact of education and hands-on learning experiences.

Overall, my internship experience at DIYA Labs not only allowed me to contribute to meaningful CSR initiatives but also deepened my passion for education and technology. It underscored the importance of empowering individuals, especially women, through practical learning experiences, and equipped me with valuable skills and insights to make a positive impact in the field of STEM education.