JACOB Our senior design idea, QuickShift, is aimed towards building an equivalent of gig platforms (Doordash) but for restaurant employees, and where restaurants can assign shifts for workers. From an academic point of view, being a senior computer science major this project would afford the practical application of software development, user interface design and data management skills I've learned thus far in my degree. QuickShift aims to solve a common problem in the restaurant sector: maintenance problems such as staff availability which hampers the normal running of activities. The operation of intelligent matching algorithms and convenient user interface that will be used in our platform will make the process of filling the open shifts fast. In this project we are actually able to blend or combine both the theoretical and practical aspects that we learn in class. It will be inspiring to apply this idea and observe it affect the given field. The college courses which I have taken have gone a long way in preparing me for the development of QuickShift. In the course CS 2028C Data Structures, I came across efficient algorithms that shall be helpful in sorting and pairing of shifts in the platform. CS-3003 Programming Languages exposed me to the entire functionality of software development process giving me the skills to plan, design, implement and test software systems. From CS-5156 Computer Networks (in progress), I understood databases, hence designing and managing the data structures required to store information about the users and shifts. The course CS 5064: Artificial Intelligence made me develop interest in adding intelligence to software, which we will deploy in our project to facilitate appropriate matching of the users. Apart from technical competencies, these courses also introduced me to analytical thinking and decision making which are what will enable us overcome some of the difficulties that may be encountered in the process of development. With the academic experiences I have made, I will be in a position to apply quick shift where I will be of utmost importance. My co-op experiences have also impacted overall strategy for QuickShift project too. During my course, I did three co-op terms at Siemens Digital Industries Software and was employed as Software Engineer Intern and I had practical experience in the development of software. I developed in C++ and Tcl/TK; the projects were to clean up, refactor, and improve the quality of existing code, which I personally will use for QuickShift. Moreover, while on my double rotation, I was privileged to mentor another intern and therefore I strengthened my leadership and communication skills apart from being able to learn the process of working within a team setting. The use of GitLab for version control and project management also helped me improve my organizational skills that will help me intended to coordinate the team’s working process in QuickShift. These five experiences above have taught me both technical and non-technical skills that I will use to help make our project well structured, efficient, and successful. QuickShift is exciting for me to work on as it aims to solve a real-life problem within the food sector especially the restaurants industry, which sometimes experience staff changes at the last minute. The opportunity to work on designing the solution that can has a real impact on business motivates me to the greatest extent of my ability as I have wanted to create a product that will impact restaurants by providing them with flexible staff options and employees would be glad to get job offers from the restaurants applying this solution. This project also resonates with my passion of building technology applications that address real life challenges in people’s lives. It is my hope that I will be able to assist in developing a tool that de-sweats the whole process of staffing and consequently make things easier for restaurants to run. Joining this project means that I can contribute to something that is valuable while continuing working on myself. As far as QuickShift evolution is concerned, our strategy is to create the initial version, which includes significant features, like shift postings and sign-up, and then generate a series of modifications according to the users’ feedback. We want to incorporate the best practices we will identify throughout the development process so that we can enhance the platform as we continue to gain insight into our users’ requirements. The anticipated result is a functional system that matches restaurants with employees on job boards and help relieve the pressure of last minute hiring. To self-assess my contributions, I will review my work with benchmarks that have been set in terms of progress and guarantee that the quality of the work is up to par. The fact that the platform is workable, easy to navigate, effectively obtained positive feedbacks from test users will be an indication that I have done a good job. Success, therefore, will be in terms of effectiveness and efficiency of the platform in terms of usability, reliability, and functionality of the platform to these key stakeholders: the restaurants, and the workers.