Screening Test/Interview Questions for Jr. Software Engineer(Remote) Position

Instructions: Please precede all your answers with the question you are answering.
Use acronyms only after you've explained them.
Use correct spelling and grammar.
Be sure to write your name and the interviewer's name.

Candidate's Name: **Michael Pradetto**

Interviewer's Name: **Brat Walker**

1. Are you currently employed?
Yes.

2. Will you be able to devote 20 to 40 hours of your time weekly?
Yes.

3. What techniques would you choose to motivate disengaged employees?
Based on my past experience managing 11 direct report supervisors and 300 indirect reports, I have extensive experience in motivating disengaged employees. To prevent employee disengagement, it's essential to maintain an open communication policy so that you can address any questions or concerns that arise. From there, you should ensure that the employee understands and is aligned with your expectations and goals. I usually achieve this through a 30-60-90 day plan that provides the employee with training and development opportunities. Throughout this process, it's important to acknowledge the employee's accomplishments to maintain their motivation and eagerness to continue progressing. Additionally, if an employee remains disengaged, it's crucial to cultivate a positive work environment and provide flexibility to meet their needs. It's important to remain open to their feedback and to coach and mentor them to keep them engaged.

4. What metrics do you use to monitor your team's performance?
While it is important to tailor metrics to each team's unique duties and tasks, there are some core fundamentals that I have used to measure team performance.

Firstly, I believe in measuring productivity to determine if the team is completing their tasks on time and efficiently. I don't believe in micromanaging a team member's time, but as long as they are productive and getting the job done, it's what counts.

Secondly, it is crucial to measure the quality of the team's work to ensure that there is a good balance between productivity and quality.

Next, personal metrics like attendance and punctuality to meetings are important to measure. It's essential to assess whether team members are available and punctual when meetings are scheduled, so that we can start on time and make the most out of our time together. I do not request many times to meet as it is real time consuming but the times I do I expect punctuality.

Lastly, it is important to measure how well team members communicate and collaborate with one another. This metric can be hard to measure, but doing so ensures that team members are communicating effectively and working together to achieve team goals.

If I were tasked with addressing frequent downtime in a legacy system, I would begin by conducting general assessments to determine the root cause of the problem. The first step would be to check the error logs and system logs to understand when, where, and why the system is down. This would give me insights into any errors or patterns that may be contributing to the downtime.

If a specific area or component is flagged in the error logs, I would dive deeper into that component to identify any recent version control updates or additions that may be causing the issue. I would run unit tests on the component in a sandbox environment to recreate the problem, and I would review the code base to identify the issue.

If I'm unable to identify the problem, I would review the system's documentation to ensure that there are no compatibility issues between the old and new systems. I would check the security of the system to ensure that it has not been compromised. If all else fails, we would have to consider rolling back software to a version prior to the issue if it was impacting the entire system from operating.

At my current role, I developed a software invoicing website to expedite the special handling of packages process, which was previously being tracked on pen and paper at one distribution center. The app was developed using the PERN stack (Postgres, Express, React, and Node). The app is simple to use - upon loading the page, the user is prompted to log in. After verification, they will be taken to a protected route dashboard with a simple layout.

The dashboard has an "add barcode" input field that makes POST requests to the backend, inserting the barcode into the PostgreSQL database that I set up. Beneath that, there is a table that displays the sort and filter options of the Barcode labels being scanned in for invoicing purposes. The table has pagination, filtering, and search functionality, along with date search filters and custom preset data filters, such as one month back or two months back. The routes on the backend are protected with whitelisting to be called from a certain domain to prevent Cross-Site Scripting and Cross-Site Request Forgery.

To ensure data integrity, there are only GET requests to retrieve the labels, and if you want to DELETE an entry from the invoice, you have to do that on the database side. The frontend and backend are hosted and deployed using Heroku together.

have a passion for studying new software and technology, both as a hobby and as part of my work. In my free time, I enjoy learning new skills through various channels, including YouTube

tutorials, Udemy courses, in-person user groups, Discord communities, and by utilizing resources like ChatGPT.

To ensure that I make consistent progress, I have established a disciplined routine where I dedicate at least three hours of my day to learning and developing my skills. This helps me stay up-to-date with the latest advancements and technologies, and allows me to continually improve my abilities in my current role and beyond.

Yes, I attend in-person meetups such as DesertPy and PhxJs. However, since I recently relocated to Houston a month ago, I am actively looking to join new groups. In addition to attending in-person seminars, I also participate in some Discord communities and enjoy giving back to the community.

For example, I have created a language-agnostic study guide on my GitHub with over 300 stars and 10,000 unique visitors. The guide is designed to assist with studying data structures and algorithms, and is open to anyone who wants to learn more about these topics. I believe in the importance of sharing knowledge and helping others to grow their skills, and I am committed to continuing to contribute to the development community.

Link: https://github.com/Pradetto/DSA-Cheat-Sheets

9. How do you meet tough deadlines?
When faced with tough deadlines, I use different methods depending on the project's size, complexity, and importance. Generally, I begin by planning my time and prioritizing the different tasks. I break down the project into smaller components, assign stakeholders to each task with an earlier due date than the overall project deadline. This allows me to review the project with my boss prior to submission and make any necessary adjustments.

To ensure that the project stays on track, I prioritize and flag the critical tasks that are essential to its success. I also proactively track these tasks more closely than the others. Once the project is set up and broken down into timelines and due dates, it's a matter of time management and discipline. I remain disciplined in my daily routine to ensure that I stay on track and meet my deadlines.

If any issues arise during a tough deadline, I communicate them early and clearly. If necessary, I reach out for help to ensure that the project is completed on time.

10. Tell me about a time you completed great work under pressure.
As a project manager for a new 500,000 sqft green-site distribution center launch, I faced tight deadlines due to scheduled transportation arriving on a set date. To manage tasks under immense pressure, I used an Issue Action tracker, a table with columns such as task, stakeholder, department, show stopper, and due date. This allowed for a clear and organized plan, and prioritization of essential show-stopper tasks for operation.

Remaining flexible and calm was crucial to overcoming obstacles, and reaching out to colleagues with more experience was an option. Following this process, I successfully launched a green-site warehouse that now ranks in the top 5% for KPIs of all Postal Distribution facilities in the United States.

11. Tell me about yourself and your last/current job/class?

Currently, I am working as a Business Analyst for LGSTX where I am part of a team called Team Robinhood. This team is responsible for resolving issues within the organization with little guidance, but a clear end goal set by senior management. My role is very independent and remote, where my contribution to the organization and the value I bring is more important than micromanaging my everyday work. As a self-motivated worker, I find intrinsic value in doing a good job and exceeding expectations.

I have completed several important projects in this role, including developing the LGSTX Barcode Invoice website, conducting an ETL process that drove annual cost savings of $600k in our warehouse logistics, and managing large-scale projects such as launching Air Gateways, distribution centers, and developing Reliability and Maintenance Engineering Standard Operating Plans.

Outside of work, my life revolves around my family, health, self-development, and work. I follow a strict daily routine that includes a healthy diet and training for a half-marathon and weightlifting. I also enjoy reading books and studying new programming languages while making time to spend with family and friends.

12. How long would you expect to work for us if hired?
As someone who values building long-term relationships, I have been with my current organization for 5+ years. I thrive in a family-like atmosphere and enjoy working closely with individuals. Seeing progress and development over time, both for myself and my peers, is fulfilling. Since work takes up a significant portion of our lives, it's important to enjoy the company of those around us and find satisfaction in what we do.

Looking ahead, I am seeking an organization where I can continue to develop and remain for multiple years. Building a sense of loyalty and trust with an organization is important to me, and I value the opportunity to make a meaningful impact in the work I do.

13. What type of software have you worked with?
I have work with a variety of programming languages and software, including Python, JavaScript, HTML/CSS, ReactJS, Django, NodeJS, Express, Redux, Chakra-UI, GIT, Postman, SQL, PostgreSQL, MongoDB, and Mongoose. While I enjoy using this technology stack, I am not limited to any particular language or software. I believe in the value of continuously learning new software, as each one was designed to solve a unique problem.

My ultimate goal is to become a better problem solver, and being able to pick up and use any software that is best suited for a particular job is an important part of achieving that goal. Therefore, I am always eager to learn new technologies and adapt to new challenges.

14. How much will you request per hour if you are hired?
I would request a salary that commensurates with my skills, experience, and the requirements of the position. I believe in fair compensation that reflects the value I bring to the organization. Before discussing any specific salary expectations, I would like to learn more about the role, its responsibilities, and requirements to ensure that my expectations align with the organization's expectations.

I'd love to understand what the budget is for the role and I am flexible with the range based on my years of experience.

NOTE: The ideal candidate should have the following qualities and skills: Analyzing Information, Software Design, Software Documentation, Software Testing, Teamwork, General Programming Skills, Software Development Fundamentals, Software Development Process, Software Requirements, Software Architecture, and Coaching.

DUTIES INCLUDES: Develops software solutions by studying information needs; conferring with users; studying systems flow, data usage, and work processes; investigating problem areas; following the software development lifecycle. Determines operational feasibility by evaluating analysis, problem definition, requirements, solution development, and proposed solutions. Documents and demonstrates solutions by developing documentation, flowcharts, layouts, diagrams, charts, code comments and clear code. Prepares and installs solutions by determining and designing system specifications, standards and programming.

Can you handle all of these duties effectively?
Yes