

SCREENING QUESTIONNAIRE

Employer: Nest Solutions, LLC

Position: Software Engineer

Candidate: **Krishnakumar Chavan**

Contact Information : kchavan@buffalo.edu 716-303-8361

NO.	QUESTION	YES	NO
1.a	Are you authorized to work in the United States?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.b	Will you now, or in the future, require sponsorship for employment authorization or visa status (e.g. work visa) to work in the United States?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SECTION 1: EDUCATION			
2	Do you have a Bachelor's or foreign equivalent degree in Computer Science, or a related field	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, please provide the answers below:			
2.a	Field of Study: Computer Science Date Degree Award: Aug 2023 – Dec 2024 Masters in Computer Science Name of University: University at Buffalo		
SECTION 2: EMPLOYMENT EXPERIENCE			
3	Do you have 6 months of software development experience, including experience in analyzing and improving current software to boost performance and maintainability?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, please provide the answers below:			
3.a	Employer: PTC Software Date of Employment: July 2021 – Feb 2022 Describe your job duties and experience gained: Yes, I have over 6 months of software development experience, during which I focused on improving software performance and maintainability through test automation and system optimization. I automated 160+ test cases using Selenium, reducing manual testing time by 80% and significantly increasing test reliability. I also developed a test bench that automated functionality checks with 92% accuracy, and built a pipeline for sequential test case execution with automated result storage, cutting execution time by 60%. Additionally, I implemented		

	detailed logging and integrated version control to streamline debugging and enhance the overall SDLC workflow. These efforts directly contributed to improving system performance and maintainability.		
4	Do you have 6 months of software development experience, including experience in investigating problem areas in existing software?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, please provide the answers below:			
4.a	<p>Employer: SAS Institute Inc</p> <p>Date of Employment: Jan 2022 – Oct 2022</p> <p>Describe your job duties and experience gained: I identified performance lags in Bash scripts for database backups and redesigned them using pgBackRest, which improved efficiency by 150%. While investigating storage issues in a Kubernetes-based deployment of SAS Viya on Linux, I discovered misconfigured backup volumes that were causing unnecessary duplication after reconfiguring pgBackRest and avoided it using Write-Ahead Logs (WALs), which reduced recovery times by 40%. To further streamline database management, I integrated Jenkins to automate backups and restores, cutting overall backup time by 50%. I reduced storage overhead by 30%, saving the company up to \$10k annually</p>		
5	Do you have 6 months of software development experience, including experience in developing software solutions by analyzing user needs, data usage, and workflow?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, please provide the answers below:			
5.a	<p>Employer: Data Research Assistant, University at Buffalo</p> <p>Date of Employment: Jan 2025 – June 2025</p> <p>Describe your job duties and experience gained: The developers for OneDataShare in my university needed an easier way to see real-time system performance. I worked with them to understand what data they cared about and how they used it day to day. Then, I built a scalable ETL pipeline using Python and Pandas that pulled data from InfluxDB, cleaned it up, and turned it into structured JSON. I noticed they were spending a lot of time manually processing this data, so I automated the process using AWS Glue and Lambda. This setup made the data update automatically and store in S3, making it easy for the team to access whenever they needed. To meet frontend user requirements, I developed a React.js dashboard integrated with Chart.js that dynamically fetches this data from S3 and visualizes key performance trends through interactive charts</p>		
6	Do you have 6 months of software development experience, including experience in working closely with designers, product managers, and	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	engineers to develop innovative solutions that align with project objectives?		
If yes, please provide the answers below:			
6.a	<p>Employer: PTC Software</p> <p>Date of Employment: July 2021- Feb 2022</p> <p>Describe your job duties and experience gained: During my internship at PTC Software, I automated over 160 test cases using Selenium. To make sure I was testing the right things, I regularly met with product managers to understand which features were most important and how users would interact with them.</p> <p>I also worked with designers to understand how the user interface was supposed to behave. Using that input, I built a tool that automatically checked if features were working properly, and it gave accurate results 92% of the time. To save time, I created a pipeline that ran all the tests one after another and saved the results, which helped us cut testing time by 60%.</p> <p>At one point, developers were having trouble figuring out what went wrong when a test failed. So, I added detailed logs and connected everything with version control. I talked to the engineering team to make sure the logs were useful, and this made it much easier and faster to find and fix problems. Working closely with everyone helped us build a more reliable product and speed up development.</p>		
7	Do you have 6 months of software development experience, including experience in coordinating with team members to manage codebases, ensuring adherence to best practices and coding standards?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If yes, please provide the answers below:			
7.a	<p>Employer: Data Research Assistant, University at Buffalo</p> <p>Date of Employment: Jan 2025 – June 2025</p> <p>Describe your job duties and experience gained: During my tenure as a research assistant at University at Buffalo, I built a React.js dashboard that used Chart.js to show real-time system performance data from S3. Since the dashboard was going to be used by multiple teams, I made sure the code was clean, well-documented, and easy to maintain.</p> <p>I followed best practices like breaking components into reusable pieces, writing clear commit messages, and setting up linting rules to keep the code consistent. I also created a simple style guide and shared it with the team to make sure everyone's code looked and worked the same way. During code reviews, I gave feedback on readability and structure, and I welcomed suggestions to improve my own code.</p> <p>To avoid bugs and make updates easier, I used TypeScript for type safety and added unit tests for key components. This made it much easier for other developers to jump in and contribute without breaking anything.</p>		

8	Do you have 6 months of software development experience, including experience in developing and documenting well-structured APIs by studying integration requirements and optimizing communication workflows?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8.a	<p>Employer: SAS Institute Inc</p> <p>Date of Employment: Jan 2022 – Oct 2022</p> <p>Describe your job duties and experience gained: During my experience as a Software Engineer at SAS Institute Inc, I was working on an internal tool where I built FastAPI endpoints to automatically extract data from JIRA for reporting purposes. Before this, the team had to manually pull data, which was slow and often inconsistent. After automating the process, report generation became 35% faster.</p> <p>To make sure the APIs met everyone's needs, I worked closely with the data analytics and project management teams. We held regular stand-ups where I asked what data they needed and in what format. Based on their feedback, I added filtering, pagination, and error-handling features to the API to ensure the results were clean and usable.</p> <p>Once the data pipeline was set up, I helped connect the output to Tableau dashboards so team leads could track progress and performance in real time. I also documented the API endpoints clearly so that other developers could understand and use them without needing extra help. Working in agile sprints, we delivered updates quickly and made improvements based on regular team feedback</p>		
9	<p>If qualified, are you willing to relocate to Bellevue, WA as required per the job description?</p> <p>I already live in Bellevue. I am preferably willing to visit the office for an onsite interview if possible.</p>	<input checked="" type="checkbox"/>	<input type="checkbox"/>