BIRLA GLOBAL UNIVERSITY

BHUBANESWAR

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Job Title: Programmer

School: Computer Science and Engineering (CSE) Department

Reports to: Faculty Lead

Location: BGU Campus

Position Summary:

The Programmer in the CSE Lab is responsible for developing, maintaining, and supporting software applications, tools, and systems that are used within the lab environment for educational and research purposes. The programmer will assist faculty and students by providing technical support, writing custom code for projects, maintaining lab systems, and ensuring that software and hardware work seamlessly together. This role involves working on a variety of programming tasks, including developing software tools, conducting system updates, and supporting research projects.

Key Responsibilities:

Software Development & Maintenance:

- Develop, test, and maintain custom software applications within the CSE Lab for academic and research purposes.
- Write clean, efficient, and well-documented code for various lab-related projects and assignments.
- Update, debug, and enhance existing software systems and tools used by faculty and students.
- Assist faculty and researchers by developing or adapting software for research prototypes, simulations, and data analysis.
- Provide coding support for students working on academic projects, assignments, or research-related tasks.

System Administration & Support:

- Maintain and support the lab's hardware and software systems, ensuring that all tools are up-to-date and functioning properly.
- Configure and deploy software updates, patches, and new applications for the lab environment.

- Troubleshoot hardware and software issues reported by students or faculty and provide timely resolutions.
- Support the lab's computing infrastructure, including server management, databases, and networks, where applicable.

Technical Assistance & Collaboration:

- Provide technical support to students and faculty using lab systems, answering questions and solving programming issues.
- Assist with the setup and configuration of new software tools or systems to meet the needs of specific courses or research projects.
- Collaborate with faculty and researchers to develop programming solutions for academic projects, assignments, or experiments.
- Offer training or documentation to students and staff on the use of new or existing software tools.

Research & Development:

- Participate in research projects, assisting with software and system development for academic purposes.
- Support faculty and students in research by contributing programming expertise to create new tools or software solutions.
- Stay up-to-date with emerging technologies and best practices in software development, applying new techniques or tools to improve lab systems.

Documentation & Reporting:

- Maintain accurate records of software development, system configurations, and other technical activities in the lab.
- Document software solutions and user guides to ensure smooth operation and ease of use for students and faculty.
- Report issues with software or hardware to the lab manager or IT support staff for further investigation and resolution.

Education:

- Bachelor’s degree in Computer Science, Computer Engineering, Information Technology, or a related field.
- A Master’s degree in a relevant field or relevant certifications in software development and programming is a plus.

Experience:

- At least 5 years of programming experience, preferably in an academic or research lab environment.
- Experience with multiple programming languages (e.g., Python, Java, C++, JavaScript) and familiarity with web development tools (e.g., HTML, CSS, JavaScript).
- Experience working with operating systems commonly used in academic labs (e.g., Linux, Windows, MacOS).
- Familiarity with database management systems (e.g., MySQL, PostgreSQL, MongoDB) and version control tools (e.g., Git).

Skills & Competencies:

- Strong knowledge of algorithms, data structures, and software engineering principles.
- Ability to write clean, maintainable, and well-documented code.
- Strong troubleshooting and problem-solving skills in a programming or systems context.
- Experience with both back-end and front-end development.
- Proficiency in the use of integrated development environments (IDEs) and other software development tools.
- Strong communication skills, both written and verbal, for working with students and faculty.
- Familiarity with virtualized environments, cloud computing platforms, or distributed computing is a plus.

Personal Attributes:

- Detail-oriented and committed to high-quality software development.
- Able to work independently and as part of a team in a dynamic academic environment.
- Patient and approachable with students and faculty, offering help and guidance when needed.
- Strong time management skills with the ability to handle multiple projects simultaneously.
- Eager to learn and apply new technologies to improve lab operations and student learning experiences.

Work Conditions:

- Full-time or part-time position depending on the university's needs and lab schedule.
- Work may involve occasional evening or weekend hours to support lab activities or deadlines.
- Position may require physical presence in the lab to manage systems and provide technical assistance.
- The programmer may need to interact with both undergraduate and graduate students and support faculty research projects.