Senior Systems Software Engineer (Backend Engineer) - School of Nursing

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Job Number: 164209

Department: SON:Office of Nursing Research

Remote Work Classification

Hybrid Remote

Health and Safety Information

Not Applicable

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Emory University is a leading research university that fosters excellence and attracts world-class talent to innovate today and prepare leaders for the future. We welcome candidates who can contribute to the excellence of our academic community.

Description

The School of Nursing is looking for a skilled Senior Systems Software Engineer (Backend Engineer) with strong experience in Node.js, SQL databases, and AWS to design, develop, and maintain scalable backend services. The ideal candidate will have hands-on experience

building high-performance APIs, writing efficient SQL queries, working with relational databases, and deploying applications in cloud environments.

KEY RESPONSIBILITIES: Leads software projects. Works with other developers to architect and design the individual project as well as implement the critical components. Projects and applications may include Web and Grid services-oriented systems; portal environments; client-server based applications; applications that manage, integrate, and analyze large scale databases; applications and middleware infrastructure that provide federated, secure access to multiple applications and databases; knowledge management and integration systems; and systems for high performance databases and analysis applications. Architects and implements interoperable middleware components, data models, and interfaces for integration of multiple software systems, applications, and databases. Develops and integrates software for secure and controlled access to application components and databases. Designs and implements graphical user interfaces for components of a software system and for applications. Performs related responsibilities as required.

ADDITIONAL JOB DETAILS:

- Design, develop, and maintain backend services using Node.js.
- Build and optimize RESTful APIs and microservices.
- Design and manage SQL databases (schema design, indexing, query optimization).
- Deploy, monitor, and manage applications on AWS (EC2, RDS, S3, Lambda, etc.).
- Implement security best practices (authentication, authorization, data protection).
- Optimize application performance and scalability.
- Write clean, maintainable, and well-documented code.
- Collaborate with frontend developers, DevOps, and product teams.
- Participate in code reviews and technical discussions.
- Troubleshoot and resolve production issues.

MINIMUM QUALIFICATIONS:

- A bachelor's degree in Computer Science, Engineering or a related field and three years of software engineering or related experience.
- A master's degree in Computer Science or Engineering is preferred.
- Strong programming skills in Java, C++, object oriented-design, XML, SQL and database development.
- Experience with software engineering best practices such as software design patterns, requirements gathering, version control, automated testing, and configuration management is required.
- Experience with service oriented architectures, web services, Grid technologies, distributed computing strongly preferred.
- Strong leadership and communication skills.

PREFERRED EXPERIENCE AND QUALIFICATIONS:

- Strong proficiency in Node.js (Express.js or NestJS preferred).
- Solid experience with SQL databases and query optimization.
- Hands-on experience with AWS services (EC2, RDS, S3, CloudWatch, IAM).
- Experience maintaining and improving existing systems.
- Strong troubleshooting and problem-solving skills.
- Experience with AI/ML workflows or integrating machine learning models into applications.
- Familiarity with Python and common ML libraries (e.g., TensorFlow, PyTorch, scikit-learn).
- Experience working with data pipelines or large datasets.
- Knowledge of CI/CD pipelines and DevOps practices.
- Experience in healthcare or regulated data environments.

NOTE: This role will be granted the opportunity to work from home regularly but must be able to commute to Emory University on a flexible weekly schedule based upon business needs. Schedule is based on agreed upon guidelines of department. This role requires residency in the state of GA. Emory reserves the right to change remote work status with notice to employee.

Additional Details

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