



The Department of Biomedical Informatics (DBMI) at Harvard Medical School is looking for a **Lead Senior Database Developer** to help populate, tune and manage the data warehouses behind our research platforms. We seek an individual to work on our multidisciplinary team of data scientists, medical doctors, and developers. As a senior member of our team the individual will manage our junior database and software developers on database practices. This individual will work directly with data stakeholders to understand their data and load it into our data warehouse. The individual will also need to utilize database tuning and design skills to help us scale our operations and adopt new technologies.

Our team studies large and disparate datasets from the domains of biology, healthcare and social media. The goal of our efforts is to transform healthcare and research to usher in a new age of individualized data driven medicine.

We work in a constantly evolving environment, iterating through prototypes with our experts to create research tools and methods. In this rapid and open space individuals will be able to exercise creativity in developing solutions to novel problems.

We utilize the same open source code base on all our projects which enables us to benefit many projects with the work we do on any one single project. This makes for a very collaborative and active space with other members of the team. Work is done under different projects but we all work on the same application with the same underlying database structure. Being part of an open source project means benefits can be seen even beyond our own institution as we foster a strong community with our work.

Being a part of our team involves exposure to the following

- Working on an AWS Cloud Environment which includes Oracle RDS instances.
- Exploring diverse “Big Data” storage and index solutions like Redshift, SOLR, SciDB, Hadoop, CouchDB, and others.

Principal Duties and Responsibilities

- Collaborate with domain experts to assist with loading data into our data warehouse and verifying results with them.
- Manage our team on the evolution of an existing workflow to transform and load data. Novel tools and scripts will be created where it is needed in this process.
- Work closely with application developers to tune slow application performance using both Oracle specific tuning methods and incorporating new technologies into our application base. Collaboration with the application team to integrate these changes will be very important.



- Brainstorm with the team on architectural decisions as our database needs grow. In doing this research new technologies that could possibly address our data storage and access needs.
- Mentor junior database and software developers providing them with knowledge on best practices and techniques.
- Participate in advising and training research associates, postdoc fellows and graduate students on best practice to run statistical analysis on big data databases.

Basic Requirements: 5-8 years of experience working with the Oracle DBMS including schema creation, development of PL/SQL code, and administrative maintenance. Experience in query tuning and optimization utilizing indexing, partitioning and system level strategies. Experience with ETL tools (Pentaho's Kettle/Data Integration) and loading tools like SQL*Loader. Experience working in a Unix like system. Experience in scripting languages like Perl or Python.

Additional Requirements: Experience working in “Big Data” environments. Experience in developing APIs for interapplication communication and data sharing. Ability to communicate effectively both orally and in writing. Ability to manage projects in a self-starting, nearly autonomous fashion. Ability to work well on a team, communicating effectively and supporting team members as needed. Analytical skills to collect information from diverse sources, apply professional principles in performing various analyses, and summarize the data in order to solve problems. Ability to interact with outside collaborators. Providing prompt and professional service, support and communication.

*Harvard Medical School is an Equal Opportunity/Affirmative Action Employer.
Women and minorities are especially encouraged to apply.*

To apply:

The job requisition number is **36658BR** and you may view and apply to this posting at
https://sjobs.brassring.com/1033/ASP/TG/cim_home.asp?partnerid=25240&siteid=5341 by searching with the job requisition number.

For additional information contact:

<http://avillach-lab.hms.harvard.edu>

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