CAREER OPPORTUNITY

The Council for Scientific and Industrial Research (CSIR) is a leading scientific and technology research organisation, implementing projects throughout Africa and making a difference in people's lives.

Senior Solution Architect and Software Developer: Data Science

About the job:

The CSIR has a vacancy for a **Senior Solution Architect and Software Developer: Data Science** in the Data Science, Analytics and Visualisation Research Group within the Meraka Institute. The incumbent will undertake and lead development of data science solutions on state-of-the-art infrastructure platforms suitable for big data applications for industry and government operations. These solutions will apply data analytics and machine learning to develop models and visualisation that can be embedded in robust decision support systems in a Research and Development (R&D) environment and take these solutions to a technology readiness level suitable for piloting and eventually commercialisation. This position is based in Pretoria.

Key responsibilities:

- Contribute to project proposals;
- Generate detailed specifications for software solutions based on the needs of the business;
- Contribute to various aspects of the system development life cycle including concept development, design of software systems and architectures to realise the solution;
- Develop robust software solutions, including applications for model prediction, machine learning, big data, simulation, etc;
- Lead the design and development of the solution and software architecture with security, scalability, operations and maintenance in mind;
- Debug issues related to system or product/service development;
- Develop test procedures and test software for systems developed;
- Communicate with vendors of components and tools as needed;
- Communicate with open source communities for support on open source tools as needed;
- Ensure code compliance and best practices are adhered to;
- Ensure source code version control and configuration management with code repositories;
- Lead a team of software developers towards achieving the desired end product; and
- Communicate progress on individual and group tasks to different levels of management.

Qualifications, skills and experience:

- A Bachelor's degree in computer/software/electronic engineering or computer science with at least five years working experience in software development preferably at a production level;
- Experience in system development life cycle methodologies (like scrum) for software teams;
- Experience with software and system test methods, system validation and verification;
- Experience in writing and reviewing detailed software and system requirements;

- Experience of technical writing, such as preparing good quality technical reports;
- Experience in guiding junior team members: assigning and following up on tasks;
- Experience in client-side, server-side and/or cloud environments;
- Experience in dealing with client issues and feedback;
- Good grasp of networking principles, web service protocols (e.g. SOAP/REST), transport protocols (e.g. HTTP/HTTPS) and extremely proficient in big data architectures;
- Exposure to data data analytics, machine learning and visualisation and some experience in using: Hadoop, Spark, Node.js, Angular, MongoDB, Postgres, MySQL, D3, etc;
- Self-motivated, high-initiative and enthusiastic person. (The successful candidate must show evidence of being a high-performer with limited or no supervision.);
- As data science application areas are multidisciplinary in nature, the candidate must display: integrity; innovation; sound technical knowledge; and lateral thinking ability. The candidate must have the capability to contribute and interact across the boundaries imposed by classical scientific disciplines;
- Excellent team and communication skills in a project management environment;
- Excellent system-level Python and Java Script programming, scripting, middleware, big data processing engines and diagnostic skills;
- Proficient in rapid prototyping and development; and
- Must have a passion for software architecture and software development with good current knowledge of state-of-the-art software components, tools, architectures, middleware, etc.

Should you meet the above requirements, please email your CV to jobapplications@csir.co.za with your name and surname, position title and reference number in the subject line, **(e.g. John Smith: Senior Data Science Solution Architect and Software Developer: Reference No: 308142)**

Closing date: 30 June 2017

PLEASE NOTE THAT FEEDBACK WILL BE GIVEN TO SHORTLISTED CANDIDATES ONLY.

For more info, please contact the CSIR Recruitment Centre on **012 841 4774** or email us at Recruitmentinfo@csir.co.za