Visualization Scientist

PERMANENT STAFF POSITION AT THE **VISUALIZATION LABORATORY** SPECIALIZING IN **VISUAL ANALYTICS** and **DATA-DRIVEN DECISION MAKING.** EXCITING CAREER-ENHANCING OPPORTUNITY, WITH COMPETITIVE **TAX FREE PACKAGE**.

KAUST is an **international graduate-level, merit-based research university** dedicated to advancing science and technology through innovative and collaborative research and to addressing challenges of regional and global significance. KAUST is constantly pushing the boundaries of research, development and education in the Middle East.

Located on the beautiful **Red Sea coast of Saudi Arabia**, KAUST sets exceptional standards in residences and recreational facilities and boasts a truly multicultural environment which can be enjoyed by all. It's the perfect setting to live and work for all employees and their families while also offering internationally competitive tax free salaries and outstanding benefits to entice top talent from around the world.

The **Visualization Core Laboratory** at KAUST is a **state-of-the-art facility** that offers a unique opportunity to utilize one-of-a-kind visualization, sonification, and computational resources for the exploration and presentation of scientific data. Featuring, among others, a six-sided CAVE virtual environment and several high-resolution tiled display walls, the lab partners with KAUST faculty and researchers to analyze data in new ways.

The role of the **Visualization Scientist** is to develop **rich and interactive visualization workflows** that enable the effective exploration of large scientific datasets and facilitate the understanding of the complex phenomena that produce them. You would serve as an expert in information visualization techniques, visual analytics dashboard design, infographic interactive displays and information delivery best practices using large tile displays and virtual reality environments.

Areas of Expertise
- *Data-driven decision making*
- *Multi-dimensional Visualization*
  - *Clustering Analysis*
  - *Projections, Dimensionality Reduction*
  - *Interaction and Exploration Techniques*
- *Visual Analytics*
  - *Graph-based data analysis*
  - *Temporal Data*
  - *Ensembles, Uncertainty*
  - *Geo-referenced Datasets*
  - *Comparision, Correlation*

Core Skills
- *Programming (5 years experience, at least): Javascript, C/C++, Python, R*
- *Interactive 3D Graphics: HTML5, WebGL, OpenGL/Direct3D*
- *Data Visualization: Tableau/SpotFire, D3js (or other JS charting libraries), Paraview/VISIT, Processing*
- *GIS/Databases: ArcGIS, PostGIS, CartoDB, MongoDB.*

Desired Skills
- *(Big) Data Mining Tools: Apache Spark, Weka, RStudio*
- *Demonstrated hands-on experience in interactive graphics, data visualization, data mining and analysis.*
- *Understanding of color theory and visual perception.*

PhD in Computer Science or a related area preferred, with 3-5 years of experience in some of the areas detailed above. Candidates with MSc degree and exceptional experience will also be considered.

Interested candidates may send their applications to either of the following individuals:
- *Daniel Acevedo-Feliz, KAUST Visualization Core Laboratory Director, at daniel.acevedo@kaust.edu.sa*
- *Madhu Srinivasan, Scientific Lead, KAUST Visualization Core Lab, at madhu.srinivasan@kaust.edu.sa*

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