



## **JOB SUMMARY**

The engineer will join SeaScape Research and Development team that creates state of the art software for semiconductor analysis. ANSYS RedHawk-SC is the first ANSYS product based on the new SeaScape Elastic Compute Architecture for Electronic Design Automation (EDA). Designed to handle extremely large data sets and computations across distributed machines, ANSYS RedHawk-SC allows designers of advanced system-on-chip designs (SoCs) to assess more electromigration (EM) and voltage drop (IR) scenarios per day and develop a high-level of confidence of their design sign-off.

Innovation in semiconductor design and manufacturing enables smaller device architectures with higher performance and energy efficiency for powering the smart product revolution. The physics associated with shrinking geometries, especially in the emerging 3-D IC, FinFET and stacked-die architectures, bring out design challenges related to power and reliability, affecting design closure. ANSYS simulation and modeling tools offer the sign-off accuracy and performance needed to ensure power noise integrity and reliability of even the most complex ICs, taking into account electromigration, thermal effects and electrostatic discharge phenomena.

## **ESSENTIAL FUNCTIONS**

- Demonstrate a solid understanding of the code and the team's software development processes.
- Work with manager and others to define and implement new capabilities. Once projects are defined, the engineer should be able to deliver medium sized projects with minimal input from others.
- Diagnose and fix code problems.
- Deliver code that meets requirements on schedule. Ensure that code is efficient, scalable, maintainable, extensible, robust and easy to understand.
- Optimize code to improve tool run time and memory capacity.
- Create unit, regression and/or system-level tests to thoroughly validate new features or changes.
- Communicate clearly and work closely with manager, technical leads and other engineers to refine solutions and to describe changes that may affect others.
- Understand and demonstrate best practices in software engineering.
- Be a source of expertise for others in the project team.

## **JOB MINIMUM REQUIREMENTS AND QUALIFICATIONS**

- B.E./B.Tech. degree in Electrical Engineering, Computer Science or related field, with 0-3 years experience
- Experience in C++ with broad and deep understanding of the language
- Strong working knowledge of the Linux operating system
- Strong background in data structures, algorithms, and debugging
- Ability to learn quickly, understand complex systems and to work closely with others
- Ability to complete high-quality work on time

## **OTHER INFORMATION**

Prefer PhD or M.E./M.Tech. in Electrical Engineering, Computer Science or related field.



Demonstrated skills in the following areas are a plus:

- Successful large-scale commercial software development
- Development, debugging and optimization of systems using distributed processing
- Experience with the Python programming language
- Parasitic extraction for advanced semiconductor nodes
- Transistor-level simulation or analysis
- GUI development for physical design or analysis tools
- Knowledge of geometric algorithms and region query data-structures to model large geometric data
- Experience in LVS or DRC tool development

#### **ABOUT ANSYS, INC.**

If you've ever seen a rocket launch, flown on an airplane, driven a car, used a computer, touched a mobile device, crossed a bridge, or put on wearable technology, chances are you've used a product where ANSYS software played a critical role in its creation. ANSYS is the global leader in engineering simulation. We help the world's most innovative companies deliver radically better products to their customers. By offering the best and broadest portfolio of engineering simulation software, we help them solve the most complex design challenges and engineer products limited only by imagination. Join our nearly 3000 professionals in more than 75 strategic locations around the world in making a difference in the world of engineering simulation and product development. Visit [www.ansys.com](http://www.ansys.com) for more information.

#### **ANSYS INSPIRE VALUES**

**INNOVATION**

**STRIVE FOR EXCELLENCE**

**PASSION & INTENSITY**

**INTEGRITY**

**RESPECT & TRUST**