



Simulation Engineer

Company

The Global Center for Automotive Performance Simulation (GCAPS) operates in many areas of the mobility eco-system to support tool and technology development. The services provided by GCAPS include tire test characterization, tire modeling, vehicle dynamics modeling, scenario development, environment and event modeling, sensor modeling, control algorithm development, simulation support, and research and performance analysis. GCAPS has a global customer base that includes vehicle manufacturers, technology companies, tire manufactures, and motorsport teams. GCAPS is engaged with a wide spectrum of mobility thought leaders from around the globe and exists to advance mobility technologies, enable job creation, and promote economic development in Southern Virginia. We are an organization built on core values. GCAPS hires, rewards, and recognizes employees based on the adherence to our values and behaviors.

We are proud to be an affiliated company to Virginia Tech and the Virginia Tech Transportation Institute.

Check us out at www.gcaps.net

Position

The Simulation Engineer is fundamental to the creation, implementation, and validation of mathematical based models used in simulation. This role will also execute the virtual framework development process. Working remotely is an option based on position and assignments.

Duties

- Model development and creation through application of physical and mathematical concepts
- Simulation environment creation and modification
- Model correlation with test data
- Model validation within the simulation framework
- Maintaining simulations relative to assignments
- Creation of code for data reduction and data evaluation
- Creation of code to evaluate performance of simulation to support model creation.

Required Critical Competencies

Flexibility/ adaptability – Adjusts quickly to changing priorities and conditions. Copes effectively with complexity and change.

Analytical skills – Able to structure and process qualitative or quantitative data and draw insightful conclusions from it. Exhibits a probing mind and achieves penetrating insights.

Efficiency – Able to produce significant output with minimal wasted effort. Attention to detail.



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Core Values and Behaviors

Core Value 1: Driven to success

Innovation – New ideas, methods, processes, technologies with the future in mind.

Logical Truth – Providing solutions based on fact and reason.

Engaged – Passionate dedication to scientific learning that benefits our clients and advances our employees growth.

Flawless Execution – Profound understanding of the task and recognition that all steps of a project are critical. Tasks are completed above expectations and on time.

Resolve – Endless quest for solutions to advance our client's mission and employees work-life balance.

Core Value 2: Developing trust between our employees and partners

Integrity – Honest, consistent, reliable, and fair. We take commitments seriously.

Communication – Two-way process to transfer relative information, in the right medium with clarity and concision, in a timely manner.

Trust – Upholding trust and common ground between our employees and our clients. We build and maintain solid relationships.

Influential – Thought leaders for new methods, processes, and technologies with no restrictive bounds that would impede advancement.

Basic Education Requirements

Bachelor's degree in computer science, engineering, mathematics, or another quantitative discipline.

Preferred Educational Achievements and Experience

Master's degree or PhD in computer science, engineering, mathematics, or another quantitative discipline

Prior development experience with MATLAB and Simulink

Familiarity with mathematical optimization and physical systems modeling.

Background in automotive simulation, signal processing, and/or computer vision



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Location

We are located at Virginia International Raceway in Alton, VA. Alton is near Danville and South Boston VA and Roxboro, NC, 45 minutes from Burlington, NC, and 60 minutes from Durham, NC.

Equal Employment Opportunity

To give equal employment and advancement opportunities to all people, employment decisions at VTT, LLC are made based on each person's performance, qualifications, and abilities. VTT, LLC does not discriminate against employees, students, or applicants based on age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, veteran status, or any other basis protected by law.

The Equal Employment Opportunity policy covers all employment practices, including selection, job assignment, compensation, discipline, termination, and access to benefits and training.

We participate in E-Verify

E-Verify is an Internet-based system that compares information from an employee's Form I-9, Employment Eligibility Verification, to data from U.S. Department of Homeland Security and Social Security Administration records to confirm employment eligibility.