

CPU Modeling/Verification Engineer

The ideal candidate will have a Bachelor's Degree in Electrical Engineering with five or more years of experience in behavioral modeling and Verilog/C co-simulating microprocessor designs.

Job Description: The candidate will be responsible for integration of C models into Verilog simulation environment for an advanced RISC CPU. The models will vary in levels of abstraction and will require custom designed API's that connect them to Verilog over DPI. Additional co-simulation models will be developed that replace RTL modules with C based behavioral models to support both verification and customer demos of the target application including a multiprocessor framework. Candidate will be responsible for debug and tracing tools which must be designed robustly for simulation as well as correlation to the silicon product. Candidate will work closely with micro-architect, verification and design engineers to ensure the API's support all design debug and verification requirements in a scalable and maintainable manner.

Candidates who are unable to provide specific industry examples of the required skills and experience will not be considered for this position.

The following skills and experience are required:

- Direct experience working with C behavioral models, System Verilog, and DPI to verify microprocessor designs.
- Strong software design skills in creating C level wrapper for C++, designing new API's, and working with diverse set of engineering teams to realize complete simulation solutions.
- Knowledge and experience of computer architecture, multiprocessing, and fundamentals including RISC microarchitecture and pipeline design concepts.
- Strong software design skills in C, C++, Python, Linux, and Verilog DPI.

The following additional skills and experiences would be a plus:

- Effective at identifying performance-driven issues and using modeling to assist with convergence on architectural trade-offs
- Familiarity with System Verilog and UVM verification architecture.

Must be a US Person as defined in EAR 15 CFR Part 772 and ITAR 22 CFR Section 120.15, which includes US Citizenship, US Permanent Residence, or a Protected Person under 8 U.S.C. 1324b(a)(3).

For consideration, please send your resume to careers@firstpasseng.com