



300-136 Market Ave.
Winnipeg, MB R3B 0P4

Circuit Simulation (SPICE) Developer at CEMWorks Inc.

Winnipeg, MB Canada

CEMWorks is looking to for a **Circuit Simulation Developer** to complement our talented electromagnetic simulation R&D team and implement advanced circuit simulation codes. CEMWorks provides solutions for accurate electromagnetic simulations to enable technological developments in 5G, new generations of computer chip interconnects and Smart Mobility – including smart cities and connected vehicles

As a member of the engineering team you will write code to test novel and well-established concepts for fast and accurate solution of electromagnetics challenges and participate in code testing/verification/validation, fix software errors and deliver the results of your work as research reports, presentations, and conference papers.

Responsibilities

- Contribute as a team member on development of the software and algorithms for computational electromagnetics
- Design algorithms and test their implementation on practical examples
- Write well-designed, testable computer code and prepare software documentation
- Improve general code performance and adapt it to high-performance computing software & hardware architectures
- Deploy software, perform and analyze numerical simulations

Must-Have Qualifications

- M.Sc. degree in electrical engineering, applied math, or computational physics
- Familiarity with circuit simulators and basic required algorithms
- Confidence in scientific computing with C++
- Confidence in numerical techniques for solution of ODE and PDE
- Strong math background
- Some exposure to Linux/Unix
- Desire to work on cutting-edge techniques for physics applied to real-world projects

Preferred Qualifications

- Ph.D. degree in electrical engineering, applied math, or computational physics
- Understanding of analog/RF IC design and verification practices
- Experience in implementing circuit simulators using a high-level programming language
- Experience with semiconductor device modeling
- Fluency in C++ with application to parallel high-performance computing
- Experience with common algorithms of computational electromagnetics

Why CEMWorks

- Opportunity to join a cutting-edge industry in a growing company in Winnipeg, MB, Canada
- Supportive and flexible work environment
- Competitive compensation

If you are interested in this position and meet the above criteria, please send your resume in confidence directly to jobs@cemworks.com. We thank all applicants; however, only those selected for an interview will be contacted.