



920-201 Portage Ave.
Winnipeg, MB R3B 3K6

Circuit Simulation Developer at CEMWorks Inc.

CEMWorks is looking for a Circuit Simulation (SPICE) Developer to join our team to support the development of cutting-edge electromagnetic (EM) simulation software.

We enable innovators to deliver transformational products to their customers, by delivering innovative simulation solutions to solve the most complex design challenges for the next generation IoT, autonomous vehicles, and mmWave/5G/6G technologies.

The SPICE Developer will be responsible for scalable, accurate and fast implementation of advanced circuit simulation codes to complement our electromagnetic simulation R&D team.

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

Required Qualifications

- M.Sc. degree in electrical engineering, applied math, or computational physics
- Experience in the development of RF circuit simulation tools using a high-level programming language
- Understanding of the Harmonic Balance algorithm and its application to RF analysis
- Confidence in scientific computing with C++
- 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
- Confidence in numerical techniques for solution of ODE and PDE
- Fluency in C++ with application to parallel high-performance computing
- Experience with common algorithms of computational electromagnetics

Why CEMWorks

At CEMWorks you will work with some of the sharpest minds and some of the most prestigious, well-known companies in the industry. We pride in having a responsive and supportive work environment, where every team member thrives and is a vital contributor to the company's



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success. We are committed to maintaining a culture of inclusion, offer a flexible work environment and industry-competitive compensation.

CEMWorks is an Equal Opportunity Employer. We thank all applicants; however, only those qualified for this role will be contacted.

CEMWorks does not accept unsolicited referrals for vacancies. Any unsolicited referral will become the property of CEMWorks and upon hire, no fee will be owed to the agency, person, or entity.

Apply by email at jobs@cemworks.com