

Algorithm Design Engineer

POSITION SUMMARY	
Title	Algorithm Design Engineer
Division	R&D
Location	Montreal, Canada
Industry	Electronic Test and Measurement Equipment
Employment Type	Full-Time
Experience	Senior Level

COMPANY OVERVIEW

Founded in 2012 through self-funding, **Introspect Technology** designs and manufactures innovative test and measurement equipment for high-speed digital applications. Whether it is the next smartphone or the level-4 autonomy engine in a mobility solution, our award-winning tools are used to develop, test, and manufacture next-generation products. In short, we help the leading global technology companies **make tomorrow's technology today's possibility**.

WHY INTROSPECT

DRIVE TOMORROW'S TECHNOLOGY

At Introspect, we're solving the most difficult problems encountered in electrical engineering with a passionate team that is inventing the world's most innovative test instruments. You will have the opportunity to create state-of-the-art test and measurement equipment — tools which will empower engineers to produce their finest work. You'll not only make a meaningful difference in our customers' careers, but you'll also impact the lives of people around the world with work that propels global innovation forward.

COLLABORATE WITH DRIVEN COLLEAGUES

You will work with a team of diverse and intelligent colleagues as well as with customers at the top technology companies in the world. At Introspect, you'll gain a rich, multi-disciplinary experience with colleagues and mentors committed to helping you learn and achieve your career goals.

PURSUE YOUR PASSIONS

We'll provide the support you need to do what you love and help you pursue a career which aligns with your values, passions, and aspirations. We also offer a competitive employee benefits package that includes medical and dental coverage. Join us to achieve your maximum potential, produce the best work of your career, and deliver meaningful value to customers.

JOB DESCRIPTION

Introspect Technology is seeking an outstanding **Algorithm Design Engineer** to join the core R&D team in Montreal and to contribute to the development of mixed-signal technology for the most demanding applications.

As an Algorithm Design Engineer, you will contribute to all phases of product development: from feasibility studies to architectures and then to design and validation activities. Namely, you will develop and model algorithms for measuring and correcting non-idealities in high performance mixed-signal systems. As such, you will be a central constituent of a cross-functional team consisting of analog designers, digital designers, system engineers, and characterization engineers.

This position offers a unique opportunity to be on the forefront of high-speed hardware technology and to explore advanced solutions for highly complex mixed-signal and mixed-domain systems. The position also offers the opportunity to serve leading edge technologies such as MIPI, PCI Express, USB, HDMI, and 100G/400G telecommunications standards. You will gain a rich, multi-disciplinary experience in signal processing and mixed-signal design.

The ideal candidate is a driven, self-motivated, and highly cooperative top performer who thrives in a flexible continuous-improvement environment. The ideal candidate also possesses characters of good judgment, great communication, and effective leadership. He/she is very helpful to his/her peers.

RESPONSIBILITIES

- Architect and model high-speed transmit and receive chains in Introspect Technology's products
- Develop correction algorithms in Python for important parameters such as frequency response and linearity
- Define calibration and adaptation methods for implementation within Introspect Technology's embedded systems
- Define and develop bench automation environments for calibration and characterization

QUALIFICATIONS

- Ph.D. or Masters degree in Electrical Engineering with a focus on digital signal processing and mixed-signal design
- Strong programming skills in Python or Matlab, both for modeling and implementing signal processing algorithms

- Experience in algorithm development involving signal processing concepts such as linear filter design, continuous-time and discrete-time signal processing, frequency-domain processing, correlation and regression, and stochastic processes
- Knowledge of data converter concepts, linearization techniques, and error correction techniques
- Strong communications skills
- Only self-motivated and highly cooperative top performers will be considered for this position

APPLICATION PROCESS

Please email your resume to careers@introspect.ca with the subject line "AD-F019-E-21036 – Algorithm Design Engineer". **Applications will be considered on a rolling basis.**