

# Algorithm Design Engineer

POSITION SUMMARY	
<b>Title</b>	Algorithm Design Engineer
<b>Division</b>	R&D
<b>Location</b>	Montreal, Canada
<b>Industry</b>	Electronic Test and Measurement Equipment
<b>Employment Type</b>	Full-Time
<b>Experience</b>	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](mailto:careers@introspect.ca) with the subject line "AD-F019-E-21036 – Algorithm Design Engineer". Applications will be considered on a rolling basis.