

Wenco International Mining Systems (www.wencomine.com), a subsidiary of Hitachi, is a software development and technology company that provides a series of technology product lines related to optimization and improvement of mines and material movers worldwide. Some of our products include:

- GPS-based fleet management systems
- Collision avoidance safety systems
- Asset Health and predictive maintenance
- Optimized Smart Dispatch
- Autonomous trucks and specialized automation
- Analytics and BI

As Wenco continues to build the next generation of technology, we need a wide range of professionals to help us achieve our objectives. We are currently looking for a full-time **Research Scientist** to join our head office in Richmond BC.

Reporting to the Principal Systems Engineer, the Research Scientist will join an Agile environment and be responsible for contributing towards the research and development of novel solutions and products in the area of inferential sensors, systems modeling and algorithm development. If you are an experienced, enthusiastic and motivated candidate looking to learn and progress your career, we want to hear from you!

Key Deliverables and Responsibilities:

- Industrial quality code implementation for real-time inferential sensors and monitoring solutions.
- Support and development of practical concepts, prototypes and methods in domain of:
 - Systems modeling, signal processing, design of experiment, systems identification, model validation, numerical methods, real-time algorithm design and development, inferential sensors.
- Mathematical modeling of mechanical and hydraulics elements of heavy machinery.
- Model-based inferential sensors and monitoring systems software solutions development.
- Participation and regular communication in Agile environment.
- Research and development in the specified domains and presentation of results.
- Testing and solution refinement through the life-cycle of solution development.
- Functional design, test and project documentation and reports.
- Scientific publications, state of the art reviews, surveys and reports.
- Process development for product configuration, calibration and use in real-world operation.

EXPERIENCE, KNOWLEDGE, SKILLS AND ABILITY REQUIRED:

- Degree in engineering (mechanical, electrical, mechatronics, systems) with focus on control systems, signal processing theory and applications, mathematical modeling, robotics, systems identification or related fields. A graduate degree in engineering is preferred.
- Candidates with Computing Science degree and experience with applications in industry, robotics or heavy machinery may be considered.
- Minimum 5 years experience in areas of control, modeling, optimization, signal processing, data science, or systems identification, preferably with applications to industry, heavy machinery or complex operations or facilities.
- Experience with **Octave, C/C++, Visual Studio, Python, Matlab, Simulink, Simulink Coder**



- Mathematical modeling of mechanical, hydraulic or electromechanical systems, dynamics and kinematics of robotic systems, and development and implementation of related inferential sensor algorithms and software solutions
- Experience in working with real time embedded algorithms and systems
- Experience with relational and non-relational databases, data acquisition, and handling of diverse data sources
- Experience in system or software design and the development process

Skills and Abilities

- Strong written and oral communication skills
- Highly enthusiastic and effective collaborator in a team environment
- Sharp analytical and problem-solving abilities
- Strong presentation skills
- Ability to innovate and implement novel concepts

WHY JOIN WENCO?

- We provide opportunities for **career-growth** within a fast scaling company
- We offer an **extensive benefits** plan, including a **personal/health spending allowance**
- We provide a **fun** working environment, including Fresh Fruit Mondays and Popcorn Fridays, monthly employee engagement activities, and on-site games such as Ping-Pong, Foosball, Big Jenga and Connect 4
- We offer opportunities for continuous training and **professional development** (in-house and external) to learn the latest technologies
- We offer our employees a **profit-sharing** plan that provides them with the benefits of their hard work
- We provide **free parking** and **shuttle service** for employees using transit
- We are heavily involved in the **community** and join various events of non-profit organizations
- We pride ourselves on our **company culture** (our last Employee Survey resulted in a score of 100% in **inclusiveness and diversity**)
- We offer much more!

Wenco advances the efficiency and safety of the world's surface mining equipment through our fleet management systems. We are committed to providing a stable yet exciting workplace environment for individual employees to build and grow their career with the Company.

Wenco is an Equal Opportunity Employer.

Disclaimer

The information in this description has been designed to indicate the general nature and level of work performed by employees. It is not designed to contain or be interpreted as a comprehensive inventory of all duties, responsibilities, and qualifications required of employees assigned to this job. It is not intended as an employment contract. Job descriptions are subject to change, which may not necessarily affect compensation.