Computer Vision/Advanced Robotics AI Expert

Centre de robotique et de vision industrielles Inc. – CRVI
205 rue Monseigneur-Bourget, Lévis, QC

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Working in a network environment, the **computer vision/advanced robotics AI expert** will participate in CRVI's research program and in the development of next-generation artificial intelligence and neural network models in the fields of computer vision and industrial robotics for clients in various industries. The AI expert will use their experience and state-of-the-art knowledge to develop experiments and prototypes at the frontier of computer vision and advanced robotics research.

Centre de robotique et de vision industrielles Inc. (CRVI) is a college technology transfer center located at Cégep de Lévis-Lauzon. CRVI has been an integral part of Quebec's innovation system since 1984. We help companies looking to leverage innovation and be more productive and competitive by offering our expertise in applied research, technology transfer, and customized support in the fields of industrial robotics, computer vision, and artificial intelligence. CRVI is a key player in Quebec's efforts to implement advanced technologies and truly make the jump to Industry 4.0.

CRVI is backed by a multidisciplinary team of experts (doctors, engineers, technicians) and state-of-the-art research facilities complete with industrial equipment and cutting-edge laboratories. As a firm believer in the collaborative approach, CRVI is a member of the Synchronex network, QuébecInnov, and many other sector-based associations, thereby optimizing value and innovation potential for clients. CRVI's 2021–2026 research program is focused on advanced industrial robotics, leveraging the latest advances in artificial intelligence, cloud computing, and the Internet of things to provide robots with perception capabilities and train them to perform more complex tasks requiring greater flexibility. CRVI seeks to establish a development framework to simplify and accelerate prototyping of a wide range of advanced robotics applications.

Primary duties:

Reporting to senior management, the computer vision/advanced robotics AI expert will perform the following duties:

- Design and characterize AI and neural network models:
  - Develop machine learning algorithms and neural network architectures
  - Make optimal use of modern parallel environments (e.g., distributed clusters, multicore SMP, and GPU)
- Keep abreast of new developments and best practices
- Conduct performance tests on actual systems
- Write technical documentation
- Coordinate the work of project team members to achieve objectives
- Support computer vision business development opportunities
- Work with the software architecture expert to design and develop the architecture of CRVI's advanced industrial robotics application prototyping platform

Desired skills:

- Bachelor's degree (or higher) in a relevant field

- About 6 years of relevant experience in artificial intelligence, including project management
- Knowledge and hands-on experience in one or more of the following specialties:
    - State-of-the-art deep learning applications in robotics and computer vision
    - Frameworks such as Tensorflow, PyTorch, Caffe2, and other specialized AI software
    - Machine-learning algorithm or infrastructure development in Python or C/C++
- Professional, driven, and team-oriented

Assets:
- Experience with Agile/Scrum methodology
- Experience with SDKs and key NVIDIA technologies (e.g., AMP, TRTIS, XGBoost, cuDNN, CODA, DL/ML Frameworks)
- Knowledge of Linux environment, REST APIs and infrastructure containers (Docker/Kubernetes/Ranch)
- Full-stack development knowledge

Working conditions:
- Wide variety of challenging projects
- Competitive salary and benefits
- Group insurance and retirement savings plan
- Flexible working hours (37.5 hours) and possibility of telecommuting
- Gym, pool, and weight room on site
- Free parking and coffee
- Great location for families with cultural, sports, and social activities

CRVI cares about its employees and is committed to developing their skills.

Are you interested in this position, but lack the required skills? Send us your application anyway.