MSc Position in FPGA CAD Tool Development

Position:
The FPGA CAD Group at the University of Guelph, Ontario, Canada, invites applications for a Graduate Research Assistant (GRA) in the MSc program for a period of two years in FPGA CAD. The amount of the GRA stipend will depend upon the value of other internal or external scholarships and assistantships that you may receive. The combined value of the GRA and other scholarships and assistantships will not be less than $8000 per semester. The GRA stipend will be reviewed every semester and renewal is subject to continued satisfactory performance. You can also apply for Graduate Teaching Assistantships (GTA) positions within your area of expertise. These are awarded through an open competition process.

FPGA CAD Group:
The FPGA CAD group is led by two faculty members at the University of Guelph who supervise post-doctoral, PhD and MSc students whose research is related directly to FPGA architectures, CAD tools, and applications. The group works closely with leading companies, such as NGCodec, AMD and Huawei, where reconfigurable computing is a critical technology. Today, this group is addressing challenges in hardware accelerators, electronic design automation, machine learning and deep learning.

Job Description:
The FPGA CAD Group is looking for a software engineer with FPGA CAD tool interest. The ideal candidate will have strong coding, algorithm design, and mathematical skills. The project involves developing a place-and-route tool chain to support multiple heterogeneous FPGA architectures, including Xilinx UltraScale(+) and Intel based FPGAs. The successful candidate will participate in research and development of appropriate CAD algorithms, collaborate with other group members, publish results in top tier conferences and journals, and contribute to or lead proposals. **Interest and knowledge in applying and integrating machine learning and deep learning techniques within the CAD flow would be considered an asset.**

Qualifications:
- BSc in Computer Science, or B. Eng in Electrical Engineering, Computer Engineering
- Experience implementing complex algorithms in software.
- Strong C/C++ development experience, including demonstrable contributions to large-scale C/C++ projects. Commercial or open-source development experience is a plus.
- Strong scripting abilty with shell, awk, perl, tcl, etc
- Excellent communication and presentation skills (written and verbal) in English.
- Strong analytical skills.

Contact Information:
Interested applicants are encouraged to contact Shawki Areibi (sareibi@uoguelph.ca) and Gary Grewal (ggrewal@uoguelph.ca)   Please attach your most recent CV, transcripts, and publications.