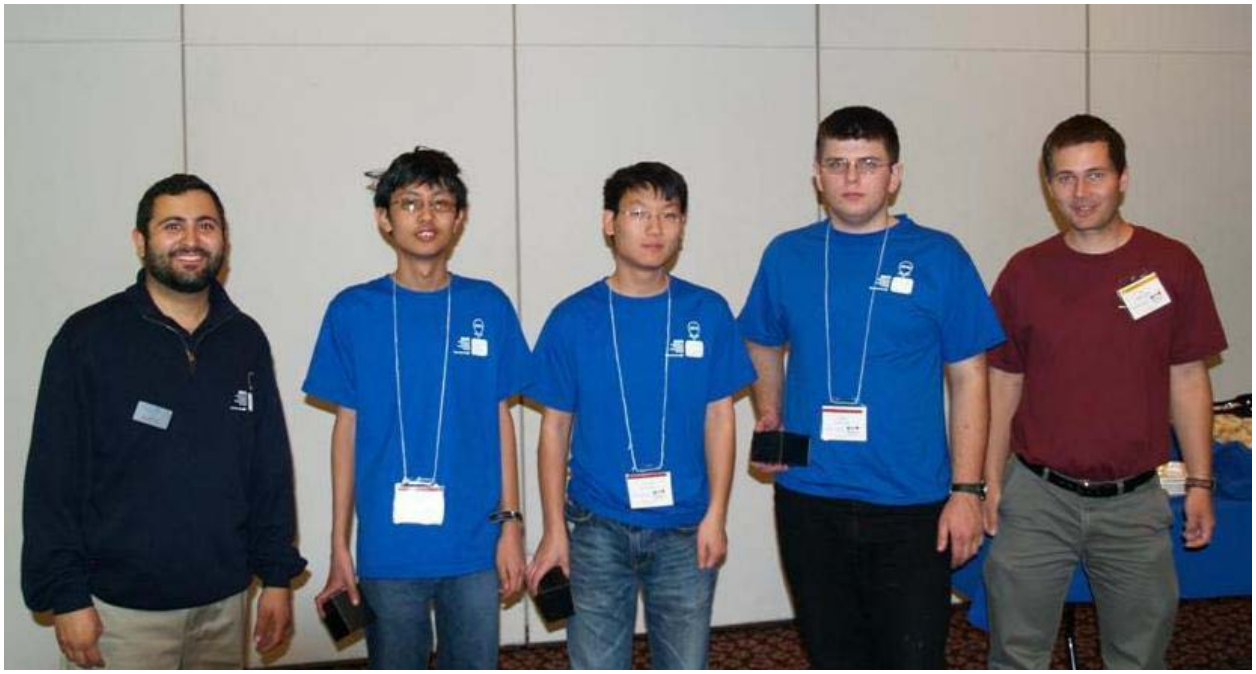
Waterloo Black programming team to compete in ACM-ICPC world finals

It's been called "**a five-hour battle of wits and bytes**" – and Waterloo Black is the team to beat.

The Association for Computing Machinery International Collegiate Programming Contest (ACM-ICPC) world finals will be held in Orlando May 27-31, 2011.

The Waterloo Black team members (in blue t-shirts) are Brian Bi, Hanson Wang and Tyson Andre. This photo was taken at the ACM-ICPC regional competition, held at the **University of Windsor** last fall. Host Ziad Kobti is on the left, coach Ondrej Lhoták on the right.



The Waterloo Black team finished first out of 112 teams from 56 universities and colleges competing in the **East Central North America Regional Programming Contest** last fall. The team finished ahead of runners-up Carnegie Mellon University and the University of Michigan at Ann Arbor, earning a spot in the world finals.

This is the 19th year in a row that a Waterloo team has qualified for the world finals – more than any other university worldwide. Waterloo teams have placed first overall twice, in 1994 and **1999**.

The University of Waterloo's reputation for dominance in this competition is well-known. The University of Michigan-Dearborn ACM-ICPC team name is "winner != waterloo".

Will history repeat itself? One of the 1999 championship team members, Ondrej Lhoták, is now a University of Waterloo computer science faculty member coaching the 2011 ACM-ICPC team. He is impressed with the performance of all three Waterloo teams that competed in the regional competition – placing first, eighth and sixteenth out of 112. Only one team can represent each university at the world finals.

The Waterloo Black team will travel to Orlando, Florida at the end of May for this year's ACM-ICPC. It was to have been held at Sharm el-Sheikh in Egypt, but security concerns postponed and eventually relocated the event. The delay did give the team more time to practice. However, Tyson, Brian and Hanson are all co-op students who are scattered for May-August work terms.

All three of the Waterloo Black team members have represented Canada at the International Olympiad of Informatics (IOI), the world's premier computing competition for high school students. Like the ACM-ICPC, the IOI competition tasks are algorithmic, requiring problem analysis, programming and testing.

ACM describes the International Collegiate Programming Competition:

"The contest pits teams of three university students against eight or more complex, real-world problems with a grueling five-hour deadline. Huddled around a single computer, competitors race against the clock in a battle of logic, strategy and mental endurance. Teammates collaborate to rank the difficulty of the problems, deduce the requirements, design test beds, and build software systems that solve the problems under the intense scrutiny of expert judges."

The team members are chosen from among the winners of University of Waterloo programming competitions. Individually, they are brilliant programmers – the challenge is learning to work together as a team. Three contestants share one computer, so it's important to know each other's strengths, communicate well and to use the machine time most effectively.

Training for the regional competition and the world finals involves simulating the contest. The contestants work to solve actual problems from past competitions in the same type of environment under the same time constraints. Afterwards, they discuss the algorithms. Each training session is five hours plus an hour for discussion.

Back in the 1990s when Ondrej first became involved with the ACM competition, there were fewer resources and less programming contest activity for high school students. He competed in the very first Canadian Computing Competition in 1996. Students now benefit from a multitude of online resources.

The ACM-ICPC has grown dramatically over the years:

1999: 1456 teams from 839 universities competed at 63 regional sites for 62 world finalists
2010: 7319 teams from 1931 universities competed at 242 regional sites for 103 world finalists

More competition has led to increasingly strong teams, chosen from growing numbers of interested students. Some universities have poured resources into ACM-ICPC preparation, even to the extent of formalizing it as part of the curriculum so that students get course credit for training. At Waterloo, the competition remains a voluntary extra-curricular activity.

For those of us cheering on the Waterloo Black team from afar on May 30th, competition organizers provide a scoreboard with updates in real time – along with photos and video - at http://cm.baylor.edu/welcome.icpc

May 4, 2011

Waterloo ACM-ICPC success

2010 – 14th (tie)
2009 – 10th
2008 – 9th
2007 – 9th
2006 – 12th
2005 – 4th
2004 – 15th (tie)
2003 – 21st (tie)
2002 – 3rd
2001 – 4th
2000 – 2nd
1999 – 1st
1998 – 3rd
1997 – 5th
1996 – 3rd
1995 – 7th (tie)
1994 – 1st
1993 – 7th