

Computer science professor takes students to Alaska for conference - and fishing

What do you need for a computer science conference in Alaska? William Tarimo '12 learned that if the trip involves two days of fishing and hiking with professor Gary Parker, bear spray is a must.

"We hiked some of the beautiful mountains, and my favorite part was how nervous we were about encountering grizzly bears. We each had bear pepper-spray hanging by our belts," Tarimo said.

While they didn't run into any grizzly bears, Tarimo and Parker did get up close and personal with moose and watched mountain goats from afar. They also caught big rainbow and Dolly Varden trout in the Kenai/ Russian River Confluence and enjoyed local foods - all before presenting cutting-edge robotics research at the 2011 IEEE International Conference on Systems, Man and Cybernetics in Anchorage.

At the conference, Tarimo presented research he conducted with Parker, a computer science professor at the College since 1999, on the use of Cyclic Genetic Algorithms (CGA) for legged-robot gait generation. Tarimo and Parker applied CGAs previously developed by Parker to a new gait generation problem of a four-legged, three-degrees-of-freedom-per-leg robot (developed by Michael Cantor '05) to evolve the walking robot's gait.

Another student, James O'Connor '13, also attended the conference and presented work he did with Parker to extend the use of Anytime Learning with Fitness Biasing to evolve the controller for a robot learning a box-pushing task.

"Both students worked hard with me in this faculty-student collaboration to test our methods for solving difficult problems in robotics, and they gained significant results," Parker said.

The research projects were submitted for peer review and accepted for presentation at the conference, a rare honor for undergraduates. In fact, Parker said most of the conference attendees probably assumed Tarimo and O'Connor were graduate students.



James O'Connor '13 (left) and William Tarimo '12 encounter moose on a hike through the Alaskan wilderness with professor Gary Parker.

"They were both thoroughly prepared, gave professional presentations and did well answering all questions," Parker said. "It's a major achievement for graduate students to get published at these conferences; people don't expect to see undergraduates."

In addition to presenting, the students had the opportunity to attend plenary talks, technical sessions and tutorials, and to interact in social settings with researchers from around the world.

"There are a lot of interesting technologies being developed," Tarimo said. "My academic and career horizons were just blown away."

The mid-October conference happened to align with the College's fall break, so Parker invited the students and his adult son to go early to explore Alaska. Parker says he tries to make these informal experiences with students part of every conference he attends, in the past taking students to tour castles and stay in the highlands of Scotland, visit historic cities in Japan, explore a wildlife preserve in Australia and scuba dive with giant mantas in Hawaii.

"Going to fish with my professor was like a father-sons adventure," Tarimo said. "I feel so lucky to have developed such a close friendship with Professor Parker in and outside of class."

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