



The
East Coast
Seals



Inspiring the Next Generation
of Ocean Professionals

by David Tipton and Laura Estrada

Peter King at his internship with
Harbour Grace Ocean Enterprises
in Harbour Grace, NL.



Figure 1: The East Coast Seals are (left to right) Peter King, Anna Behm, Keegan Rolls, Claire Spurrell, and Keeley Flynn.

In summer 2018, five very keen and motivated high school students took a deep dive into the world of ocean technology, ship design, and shipbuilding.

They had signed up for a new six-week internship program in ocean sciences and technology that was being piloted in the province of Newfoundland and Labrador on Canada's east coast. Each week they linked via a digital collaboration platform with eight other interns who had their work placements with host companies in aquaculture, marine tourism, and ocean resource management in two other regions of the province.

These five intrepid young people dubbed themselves The East Coast Seals (Figure 1) and chronicled their six-week internship experience. This is their story, in their own words.

Anna Behm was two years from graduating high school and wanted to explore the real world of work, and test out her interest in applied marine science and research, particularly in technology and biology. At Genoa Design International in Mount Pearl,

Newfoundland, Anna got to work in the R&D lab of one of Canada's leading ship design companies (Figure 2). At the end of her work placement, Anna sat down with her four teammates and reflected on the experience.

"I was able to explore an area that I didn't even know existed," said Anna with a tone of surprise. "I really enjoyed working in the R&D lab. It was fantastic learning from such amazing people. I realized I should be looking into jobs that provide me with hands-on and challenging tasks that change often. Otherwise, I would go insane!"

Keeley Flynn learned about the internship during a field trip and signed up with Anna for the work placement at Genoa (Figure 3). She had participated in a robotics class in school and was contemplating pursuing marine-related studies at the Marine Institute (MI) of Memorial University.

"I appreciated that there was a safe, open learning environment provided to us to expand our work skills during our four-week work placement at Genoa," said Keeley. "I



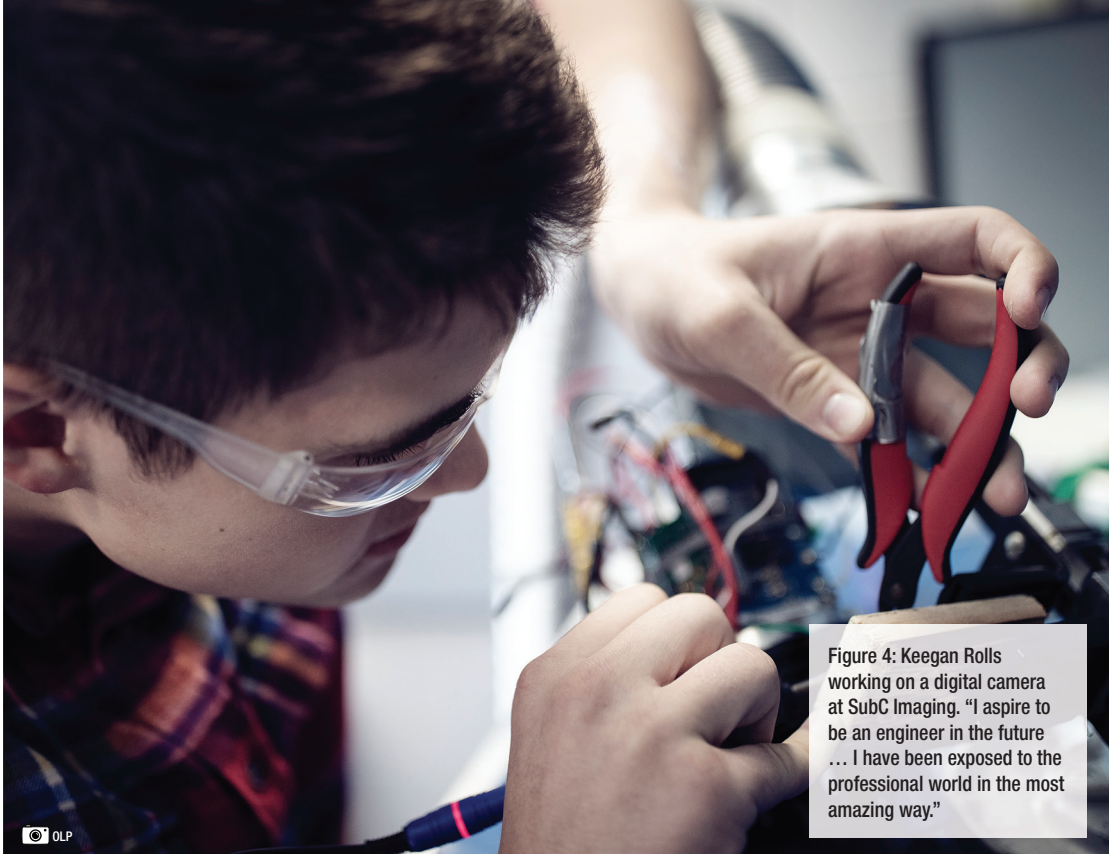


Figure 4: Keegan Rolls working on a digital camera at SubC Imaging. "I aspire to be an engineer in the future ... I have been exposed to the professional world in the most amazing way."

had the challenge of designing a pump in 3D AutoCAD! I will not get to learn about this software until my third year at MI so I was very excited to be able to have that opportunity during this internship to learn how to use it."

"Being hosted at Genoa helped me to realize that I chose the perfect program for my post-secondary education. I was accepted into Marine Engineering System Design. I was a bit unsure about the program, but after this placement, I knew I had made the right choice."

Keegan Rolls set out to explore his interest in the marine science sector and the technology involved (Figure 4). Mentors at SubC Imaging in Clarenville, Newfoundland, his host company for the internship, guided him every step of the way through the learning process.

"As a result of this internship I have grown exponentially. With the help of everyone at SubC, I have been exposed to the professional world in the most amazing way," Keegan wrote at the end of his internship. "If not for my mentor's expertise and willingness to help,

I would still be sitting there with a bunch of wires trying to make sense of the mess."

Keegan also got to see that it is possible to stay and work in his home town on the east coast of the island.

"I thought there weren't a lot of employment opportunities in my region but SubC has shown me otherwise. I didn't think that there was much work in this industry but I was proven wrong," said Keegan. "I'm just not going to be working offshore. I realize now there could be other inland opportunities working with the ocean sector, which would be pretty cool."

Claire Spurrell paired up with Keegan for the summer internship at SubC Imaging in Clarenville (Figure 5).

"I would have never gotten to see what these jobs were like. I loved getting to see firsthand what everyone does and not just hear about it," said Claire at the end of her work placement. "Before I came here, I knew



Figure 5: Claire Spurrell working on a digital camera at SubC Imaging. “I had never had a job or anything like this. I loved getting to see first-hand what everyone does ... and the internship has broadened what I thought I could do with my future.”

nothing about cameras and now I can name all the parts and the lasers and LEDs. I can tell you how many versions of the 1Cam there are. I have knowledge that none of my other classmates have and that’s pretty cool.”

The internship experience also opened Claire’s eyes to the broad range of career options in the oceans sector.

“I had a different perception going in than what I’m leaving with. The internship has broadened what I thought I could do with my future. There are a lot more options,” said Claire. “I hope that next year this program will allow more students to experience the same job exploration opportunities I was given.”

Peter King is a graduate of Carbonear Collegiate and signed up for the six-week internship at Harbour Grace Ocean Enterprises in Harbour Grace near his home town (Figure 6).

“My internship gave me a clearer vision of what fields I prefer to work in and more

knowledge of marine engineering,” said Peter at the end of his work experience. “I realized I really like working with computers and learning about new technology and this is a new possibility I did not see before.”

Peter learned a lot from the mentor assigned to work with him. “I loved working with my mentor. He is a ‘jack-of-all-trades’! I enjoyed being taught new things everyday by different people. I wanted to learn and grow,” said Peter. “Work was so much fun and I would like to thank everyone there for helping me to get an experience that I have never had before.”

Peter learned a few things about workplace norms that new recruits need to adhere to – like being on time and dressing for a professional workplace environment. And he also gained insight into the importance of teamwork and good communication.

“Work can be hard sometimes but you have to take one situation at a time and analyze the problem and see it from an overall perspective. I also realized that work is easier





Figure 6: Peter King in the shipyard. “My internship gave me a clearer vision of what fields I prefer to work in and more knowledge of marine engineering.”

when you have good relationships at work. And my communication skills are developing more and more everyday.”

Post-Script: Where They are Now

Anna and Keegan are continuing their high school studies and have one more year before they graduate. Claire, Keeley, and Peter are in the first year of their post-secondary studies; all three opted to pursue studies in ocean technology and engineering at the Marine Institute of Memorial University. ~



David Tipton was the manager on the summer internship pilot featured in this essay. He is the lead on a new career mentoring program, OceansXchange, a joint initiative of Oceans Learning Partnership, OceansAdvance, and other industry partners. Environmental science and outdoor education have been continued passions

for Mr. Tipton; he completed post-secondary studies in environmental biology and applied environmental science.



Laura Estrada coordinated the summer internship program on the east coast and was the ongoing support to the five interns featured in this essay. She is an environmental and science educator who is passionate about inspiring youth to develop a stronger relationship to the natural world. Her special interest is helping train and inspire

science teachers to incorporate experiential, place-based learning about the ocean into their classrooms. She herself is a high school science teacher and has taught in Newfoundland since 2014.

The Companies

Thank you to the ocean sciences and technology companies who participated in the internship program.



Genoa Design International Ltd. is a marine production design company based in Mount Pearl, NL. Genoa provides production lofting and detail design services to marine and offshore industries around the world.



SubC Imaging, located in Clarenville, NL, creates some of the most advanced underwater optical imaging systems in the world. SubC's products are designed for harsh environments and ease of use with ROVs, AUVs, towed platforms, ocean observatories, and drop-camera systems.



Harbour Grace Ocean Enterprises is a marine vessel repair, refit, and construction company located on Canada's east coast. The company services steel hull and fibreglass hull vessels and provides all services from painting; fibreglass repairs; steel repairs; fabrication of parts and equipment; and engine, mechanical and electrical overhaul for the fishing industry, coast guard vessels, tug and barge companies, and the offshore energy sector.