

Alumni Profiles

Grace Kenny

Grace joined the BCB program in September 2016 after completing her bachelor's degree in Biology at Truman State University. She excelled in the coursework, and conducted research with Gerado Camilo in the Biology department.

Grace spent a summer as an intern in the laboratory of Dr. Blake Meyers, at the Donald Danforth Plant Science Center. Her work primarily focused on structural genomics, utilizing Hi-C sequencing to generate 3D models of how DNA is physically structured within plant cells of the greater duckweed *Spirodela polyrhiza*.

Hi-C sequencing is a fairly recent advancement that captures interactions between and among DNA molecules in plant nuclei, enabling us to identify regions of the genome that may be functionally interacting. Starting from raw data, Grace developed a bioinformatics pipeline that produced the first 3D model of chromosome structure in *Spirodela*. She also had the amazing opportunity to work with the Oxford Nanopore MinION sequencer, which is capable of generating ultra-long DNA sequencing reads to improve and de novo assemble several related genomes. "Grace is a tenaciously independent biologist," says Alex Harkess, a postdoctoral fellow in the lab who mentored Grace during her internship. "She approached the problem of modeling chromatin structure in a plant where little has been done until recently. Grace developed reproducible methods, pipelines, and visualization approaches with a data type that she had never worked with. It was no easy feat." Grace said that working in the Meyers' lab on this cutting-edge technology was amazing and she was thankful to have had the opportunity to work with such an incredible team of scientists. Grace graduated in December 2017 and is currently working as a bioinformatician in the sequencing core at the University of Michigan School of Medicine. She is still considering whether to pursue a Ph.D. in the future.

Pruthvi Pota



Pruthvi Pota was in the inaugural class at SLU's Bioinformatics and Computational Biology (BCB) graduate program and completed her Master's degree in May, 2016. Pruthvi entered the BCB program after completing an undergraduate degree in Biomedical Engineering at Saint Louis University. This background afforded her familiarity with medical devices and the engineering of the human body on a macroscopic scale. Through her graduate education, she has evolved this knowledge into a microscopic analysis of organisms and is grateful for the smooth educational transition.

"The Master's program for BCB does a great job of catering to various undergraduate majors, fine tuning the basics and working towards complex bioinformatics topics," said Pruthvi. "Since all BCB students in my class were from various backgrounds, we learned a lot from each other and helped each other through the program."

The dynamic nature of the BCB graduate program and the unique topics covered in the program's courses keep students engaged and prepare them for success in the field. Along with her supportive cohort, Pruthvi appreciated the expertise and care that professors in the program demonstrate.

"The professors in this program are not only fantastic and patient teachers, but are also amazing mentors," said Pruthvi.

Her experience with the BCB program has been not only productive and exciting, but also extremely successful for her. Pruthvi was awarded a Monsanto Graduate Student Scholarship and obtained two internships during her graduate education with the help of her program, including a summer internship with the National Institutes of Health. Through her education and these opportunities, Pruthvi feels well prepared for her future as she applies to jobs in the bioinformatics and computational biology industry.

“In this field, every job is different and requires a unique set of skills to fulfill the job requirements successfully,” said Pruthvi. “I feel that the SLU BCB Master’s program has given me a very strong understanding and foundation of many bioinformatics concepts and tools.”

Pruthvi is now a bioinformatician at the University of Minnesota School of Medicine in the Cardiology division where she analyzes single-cell RNA sequence data.

Dylan Lawrence



For Dylan Lawrence, SLU’s Bioinformatics and Computational Biology (BCB) graduate program was a perfect fit. Having graduated from SLU with a Bachelor’s degree in Computer Science and a minor in Biology, Dylan discovered the new BCB program while contemplating his academic and professional future.

“It feels special to be a part of the first Bioinformatics class,” said Dylan. “The small classes and opportunities for one-on-one interaction with the program’s professors is an opportunity that is hard to pass up.”

Students in the program have opportunities to work on research alongside professors and develop professional experience. For Dylan and his peers, the sense of community that is fostered amongst the professors and students has largely contributed to the enjoyment of the program.

“The professors at SLU are among the most dedicated and caring people I have ever met,” Dylan commented. “They have never hesitated to make time for me throughout my graduate career and have always made themselves available to me, whether it has been for career advice, assistance in my research or a friendly chat.”

SLU’s BCB program allows students like Dylan to become familiar with all of the field’s unique aspects, while still focusing on their individual future goals. Whether

they decide to pursue a PhD or apply their skills in the professional world, students from SLU's BCB graduate program can feel confident about their future.

"I feel as though I could step into a PhD program tomorrow and have a significant leg up on fellow students that only have a Bachelor's degree," said Dylan. "I also feel I could translate my skills directly to the industry if I chose to."

Dylan graduated from the program in the spring 2016 and is now a student in the Ph.D. Computational and Systems Biology program at Washington University, where he plans to develop his research interests in microbiome analysis. Ultimately, he would like to be a consultant for the bioinformatics industry and help to establish new labs and businesses around the world.