

SUCCESS STORY



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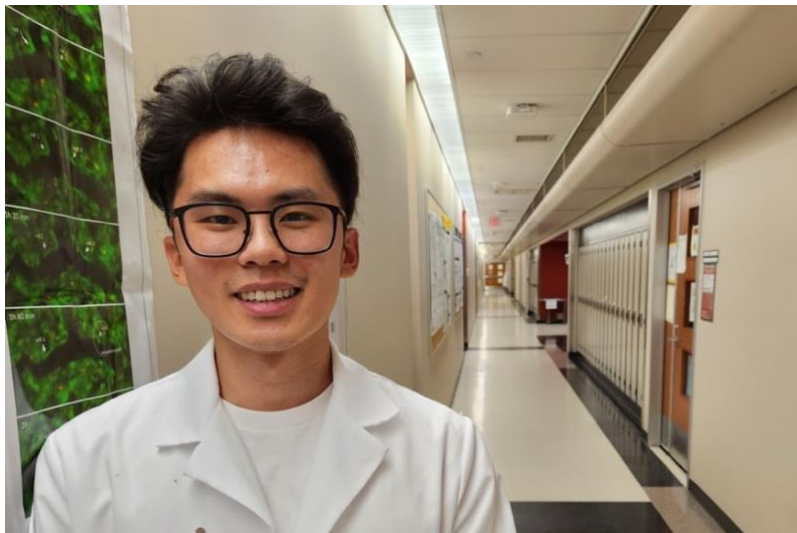
www.nanosticsdx.com

Nanostics is an Alberta-based precision health company with a leading approach to machine learning and biomarker-driven improvements to patient care. Their lead product, ClarityDX Prostate, is a highly accurate test designed to assist in the diagnosis of clinically significant prostate cancer and aid in the decision to proceed to a biopsy. Nanostics' mission is to help bring clarity to healthcare decisions. Their detection platform is applicable to a wide range of cancers and other diseases.

WIL funding allowed Nanostics to hire qualified students this summer, in turn enabling Nanostics to put extra resources towards their research and development projects. Being able to hire students also helps Nanostics assess and recruit highly qualified personal into the company, hiring with the intention of retention. This summer, the interns proved extremely successful and have helped Nanostics advance their product pipeline.

Joshua Ji, third year University of Alberta Computing Science student, was introduced to Nanostics at the Artificial Intelligence in Healthcare Conference. He thought their work in machine learning (ML) based health diagnoses was "really cool," and since Nanostics was looking for summer students he immediately applied. Joshua was unsure whether he would qualify for Nanostics' ML-based roles as his previous experiences have mainly been focused on frontend applications and software development and operations (DevOps), but it turned out his skills were a perfect fit for a planned project.

Joshua's work focused on a disease risk prediction application, specifically making the website and deploying everything



Summer intern Joshua Ji

to Microsoft Azure. Most of his day-to-day focus was on relatively small technical details, but this was what truly inspired him. “I really love solving problems, and the issues and difficulties that sprang up from building the application, deploying the model, and connecting them together were fun and motivated me to work every single day. Overall, the most exciting part of my time in this position was seeing the components come together for a fully functional application. It felt really good to have a tangible product that was the result of our hard work.”

Joshua remains hopeful and encouraged that the experience he gained at Nanostics will help him in his future career. “I am glad to have been in this position so I could learn about the full pipeline of application development: from the planning and requirements phase to deploying it. Although I am still exploring different aspects of computer science, I hope to continue working with DevOps and Cloud computing in my career, as those parts of the project were both the most challenging and fulfilling.”

Did you know?

In collaboration with CanPath, Nanostics gained access to survey data from about 300,000 participants across Canada. These participants shared details about themselves including health history from a variety of diseases including but not limited to cancers, heart disease, and mental illnesses. Using this data Joshua worked with Nanostics data scientists to create 19 different disease risk predictive models for a variety of diseases. These models have been incorporated into a prototype health risk application that can be used to better understand a person’s risk of disease. To learn more about Nanostics’ work and research, refer to their [publications](#).

WIL VOUCHER

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