Digital Health Technologies (DHT)

Class of 2024
Student Profile Booklet
Co-op Program 2023-2024

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DIRECTOR'S MESSAGE

The Digital Health Technologies (DHT) Stream prepares a new generation of professionals working in healthcare with a curriculum that has three main pillars: data science, healthcare regulation and business training. Students learn an eclectic array of skills to tackle problems in the healthcare industry such as: machine learning, coding, data visualization, data cleaning, web design, medical device reimbursement, social media analytics and healthcare product regulation. Candidates for the DHT stream have some knowledge of the life sciences coupled with evidence of a strong aptitude for analyzing data.

DHT falls under the umbrella of the Master of Biotechnology program (MBiotech). The MBiotech program now has 2 streams: Digital Health Technology and Biopharma. Over the past 20 years, MBiotech has built an enviably deep roster of sustained relationships with its many major sponsors in the industry, and continues to offer excellent opportunities to all of its students. Likewise, our sponsors are vocal about the benefits such placements bring to their operations. Many of the big players in the biopharmaceutical industry, in particular, are enthusiastic supporters of MBiotech, recognizing the unique blend of science and business skills that our co-op students can offer, and continue to post highly sought-after opportunities year in and year out.

DHT follows the same internship program as set by the highly successful biopharma stream. Our goal is to give our students a firm foothold on the career ladder in healthcare, and this pledge is backed by an unbeaten track record of success for placements both in big, established Pharma, as well as in smaller biotech and health tech companies. Very many graduates leap straight into a full-time career with our sponsors, and nearly all find employment quickly after graduation day. Conversely, MBiotech students on their co-op placements serve as ambassadors for the Program and reinforce our brand excellence, so it is critical to our future successes that our students represent your company, the University and the Program with commitment and professionalism.

Nazeem Shamsuddin, our Senior Research Associate, has a wealth of experience to help guide our students and employers through the application, interview preparation and decision-making process and will be on hand to offer advice at every stage. As with every DHT class, there will be hot competition, and some tough choices to make for all of our students and industry partners. We have actively encouraged all of our students to embrace these opportunities and to learn from them as they take the next steps towards their new careers; and we would like to take this opportunity to thank all of our corporate partners for their renewed support this year: You are fundamental to our success!

Dr. Leigh Revers, M.A. (Oxon), D.Phil.
Director, Master of Biotechnology
Associate Professor (Teaching Stream)

PROGRAM OUTLINE

MBiotech: Where Science Meets Business

The MBiotech Program is a 24 month, course-based professional degree program offered through the Institute for Management & Innovation at the University of Toronto Mississauga. Offering streams in both Biopharmaceuticals and Digital Health Technologies, the program incorporates both science and business courses with 8 to 12 months of work experience in industry. The carefully selected combination of courses, coupled with relevant industry experience and a strong focus on teamwork, provides our graduates with a truly interdisciplinary educational experience at a world-renowned university.

The program was launched in 2001, with the goal of developing biotechnology professionals with scientific and management skills for the biotechnology industry. The MBiotech Program is specifically tailored to meet the evolving needs of our students and those of the global biotechnology and health sciences sectors.

DHT: Digital Health Meets Data Science

Digital Health Technologies (DHT) Program's focus of training is data science and will include advanced training in machine learning tools. It is a 2-year professional masters program that will involve 8-12 months of placement in industry through paid student internships. Students will learn about basic business, health, regulation and data science.

The digital health field is diverse and includes: bio-physics, mobile medical apps, health information technology, electronic medical records, software and cybersecurity, health information technology and wearable technology. DHT is an area that invites a spectrum of expertise that goes beyond engineering and design.

We are committed to:

- Working closely with industry and developing a graduate program that meets the needs of current employers
- Providing a broad background of in-depth classroom and laboratory based courses relevant to the biotech and health tech industries
- Introducing students to a wide range of biotechnology and digital health tech niches in the workplace
- Developing strong business and interpersonal skills in our graduate students
- Interfacing with a wide range of biotechnology, pharmaceutical, and digital health tech through internships

DHT CURRICULUM

DHT curriculum is comprised of 9.5 graduate course credits over a 24-month period on a full-time basis. These 9.5 credits are comprised of the following:

- 8 Science courses
- 3 Business courses
- 2 Programming courses
- 3 Work Term courses

Science Courses:

- Medical Device Reimbursement
- Data Science in Health I
- Data Science in Health II
- Digital Ethnography in Health
- Introduction to IT consulting and Web Design
- Data Science and Digital Health Technology
- Biopartnering Seminar I
- Biopartnering Seminar II

Business Courses:

- Effective Management Practices
- Fundamentals of Managerial Concepts
- Management of Technological Innovation

Programming Courses:

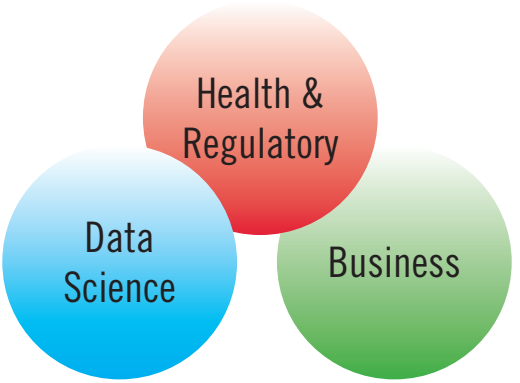
- Intro to Computer Programming
- Information & Data Visualization in Science and Medicine

Work Term

- Work Terms I, II and III
- Internship Placements

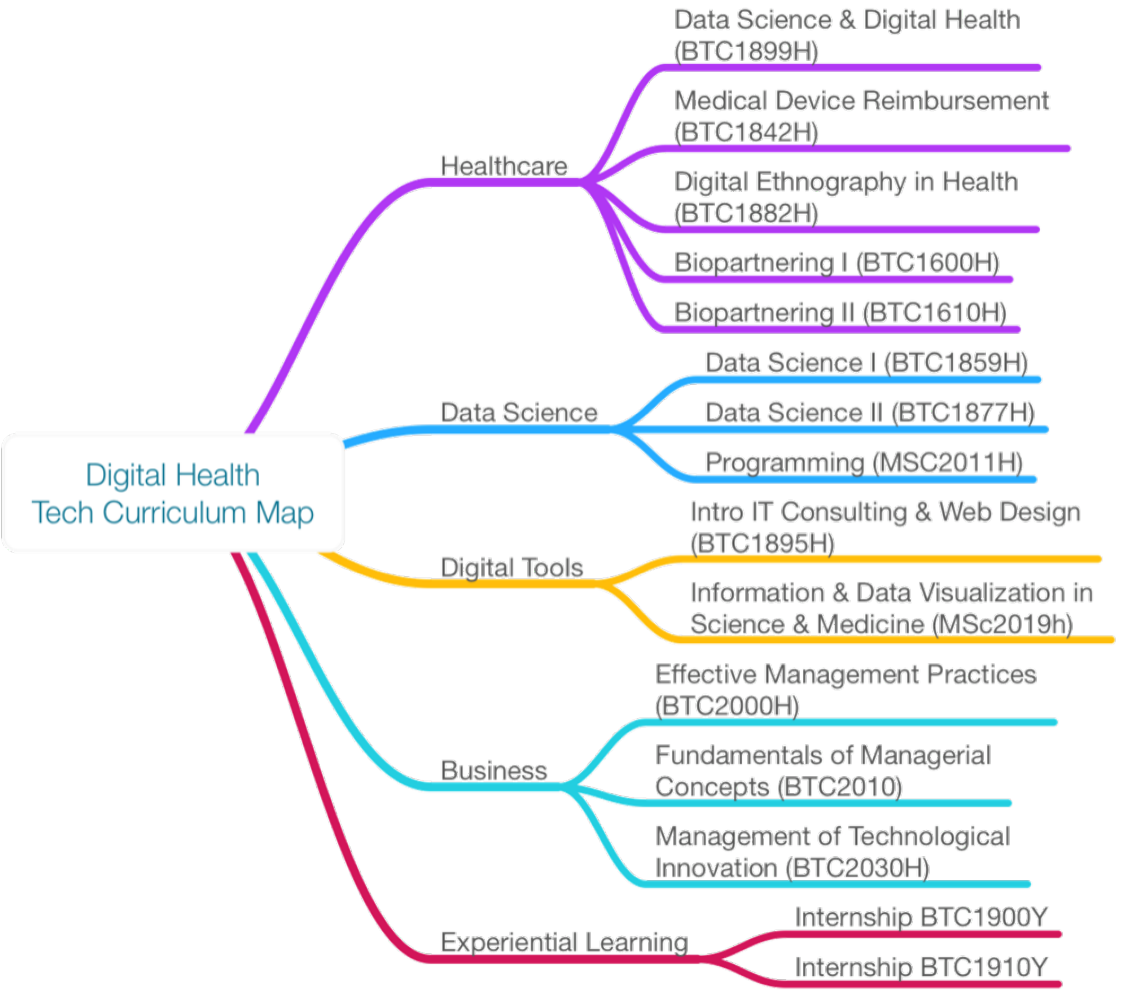
The DHT field involves three main pillars:

1. Health & Regulatory
2. Data Science
3. Business



Students will learn about chronic diseases and health & wellness related issues including emerging technology. Data science combines advanced statistical training with domain knowledge about healthcare and specific diseases, and students will be introduced to basic business concepts to understand profit drivers in this sector.

DHT CURRICULUM MAP



STUDENT QUALIFICATIONS

Training today's innovative scientists to become tomorrow's business leaders.

Our students have a professional mindset, as well as a broad spectrum of learning acquired through this innovative program that focuses on topics of special relevance in today's digital health space. Digital Health Technologies (DHT) stream prepares a new generation of professionals working in healthcare with a curriculum that has three main pillars: data science, healthcare regulation and business training.

Our Students' qualifications:

- Diverse graduate and undergraduate backgrounds in a wide-range of disciplines including (but not limited to): biology, chemistry, physics, public health, statistics, computer science, engineering, epidemiology
- Highly qualified, bright, committed individuals eager to learn and make the most of their internship opportunity
- Students learn an eclectic array of skills to tackle problems in the healthcare industry such as: machine learning, coding, data visualization, data cleaning, web design, medical device reimbursement, social media analytics and healthcare product regulation
- Future team leaders with a firm understanding of organizational skills and the importance of working together to benefit your team

Internships are arranged on a full-time, 4-month renewal basis and can be extended for up to 12 months. Placement timing is flexible and coordinated through the calendar year, commencing every May.

This Student Profile Directory is a guide created for employers and industry partners in order to introduce you to our students. The students presented in this guide are seeking 4, 8, or 12-month work terms beginning in May 2023, September 2023, or January of 2024. Our students have multi-disciplinary science backgrounds combined with business aptitude, excellent communication skills and teamwork abilities. The versatile nature of DHT students will make them valuable contributors to your organization.

Why Hire a DHT Student?

Excellent Recruitment Tool

- Students are rigorously pre-screened by the Program Office

Co-ops Are Competitive

- Our salary guidelines are in the range of $26-$32 per hour, and as they are students no benefits packages are needed

Fringe Benefits For You

- Employers can benefit from substantial tax incentives! See the section on salary guidelines for more information

CO-OP RECRUITMENT & SCHEDULING

As part of our unique program, students take up to three consecutive work-terms with top employers across Ontario and beyond. All internships are arranged through our Senior Research Associate, where each placement is full time and a minimum of 4 months in duration. As such, co-ops can be extended/renewed up to a maximum of 12 months. Placement time is flexible and is coordinated throughout the calendar year.

Work Term 1:	Work Term 2:	Work Term 3:
May to August	September to December	January to April

CRITERIA FOR CO-OP PLACEMENTS

Each 4-month co-op placement is classified as a required course for the DHT program. As such, students receive academic credit for each placement they successfully complete. Specific criteria must then be satisfied to ensure students receive appropriate credit. Please see below for a full listing of required criteria.

Co-op placements must:

- Be full-time for a minimum of four months (greater than 35 hours per week)
- Have a designated, qualified person responsible for evaluating the student's progress (please see adjacent section on `evaluation component')
- Provide the student with in-depth exposure to the employer's organization
- Be developed and/or approved as a suitable setting for higher learning
- Be monitored by the Placement and Employer Relations Manager
- Completion of Employer-Student Evaluation. For each 4-month work term the direct supervisor is required to submit a Student Evaluation in the form of a survey

SALARY GUIDELINES

The work terms for DHT students are generally paid positions, with an average salary range of $26-$32 per hour. As DHT co-ops are students, salary packages generally do not need to include extended benefit plans. Employers may be eligible for the following **tax incentive program**, in regards to hiring DHT students:

Cooperative Education Tax Credit

The Co-operative Education Tax Credit (CETC) is a refundable tax credit. The CETC is available to employers who hire students enrolled in a co-operative education program at an Ontario university or college. The Canada Revenue Agency (CRA) administers the program on behalf of Ontario through the federal income tax system.

The CETC is based on salaries and wages paid to a student in a co-operative education work placement. The maximum credit for each work placement is $3,000. Most work placements are for a minimum employment period of 10 weeks up to a maximum of four months.

For full details, please visit the Ontario Ministry of Finance Website at: www.fin.gov.on.ca/en/credit/cetc.

PROGRAM CONTACT INFORMATION

For more information on hiring an MBiotech student:

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Master of Biotechnology
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www.mbiotech.ca

Institute for Management & Innovation
UNIVERSITY OF TORONTO
MISSISSAUGA

Naina Jain

DHT

SUMMARY OF SKILLS AND ACHIEVEMENTS

- High level of organization, collaboration, problem solving, project management, stakeholder management and efficiency skills used in implementing optimization and automation processes at Roche, TD Bank, MoneyKey, Health+ Pharmacy
- Excellent analytical, communication, organizational, and collaboration skills proven through conducting and designing bio/chem experiments
- Software proficiency: Tableau, R, Excel, Word, PowerPoint, HTML/CSS, SQLWorkbench, Adobe Omniture, Azure Power BI

EDUCATION

- Master of Biotechnology, Digital Health Technologies stream, University of Toronto, Class of 2024
- Honours Bachelor of Science, Biochemistry with Biotechnology Specialization, University of Waterloo, Class of 2022

EXPERIENCE AND QUALIFICATIONS

- Research Assistant, Dr. Okey Igboeli, University of Waterloo (2022)
  - Conducting comprehensive literature review on drug resistance and its reversal
- Pharma Technical Quality Analyst, Roche (2021)
  - Created multiple automation processes to reduce data entry & streamline process of report generation, team asset management, and tableau dashboard generation
  - Launched campaign to recruit patient consultants – involving creation of promo video, webpage, and social media content; cross functional collaboration, project management
- Regulatory Delivery Analyst, TD Bank (2020)
  - Effectively used collaborative software (JIRA & Confluence) to work in cross-functional team, detailed gathering of data requirements, effective stakeholder relationship management
- Quality Assurance Analyst, MoneyKey (2019)
  - UX Testing Project Management: Developed/improved rigorous exploratory test charters for deep-dive testing into apps to discover hidden bugs
- Digital Performance Business Analyst, TD Bank (2019)
  - Leveraged fluency in Excel, Word, PPT, Adobe Omniture, Azure Power BI data analysis software tools to build multiple digital sales performance trackers for 34 lines of business
  - Collaborated with financial stakeholders to optimize processes

PERSONAL INTERESTS

- Audio books, art of all kinds, puzzle games, singing, reading, spending time in nature

Archana Jeyagaran

DHT

SUMMARY OF SKILLS AND ACHIEVEMENTS

- Self-motivated first principles thinker who can take on ambiguous problems and execute on them.
- Deep knowledge with Python, R, and Tableau in an object oriented and functional programming manner. Understands how to use all three languages to perform big data operations (Data Ingestion, Data Cleansing, Data Computation, Warehousing, Presentation)
- Exceptional verbal and written communication skills refined through various research and clinical positions such as the Hospital for Sick Children SEARCH research position and undergrad thesis presentation
- Highly motivated team player that performs well in active leadership roles such as UWaterloo World Vision President

EDUCATION

- Master of Biotechnology, Digital Health Technologies stream, University of Toronto, Class of 2024
- Honours Bachelor of Science, Biomedical Sciences, University of Waterloo, Class of 2022

EXPERIENCE AND QUALIFICATIONS

- Research Assistant, VORTEX lab, University of Waterloo
  - Built data pipelines to cleanse raw experimental data into usable data from over 100 participants to identify valid trends between blood flow, arterial bifurcations, and venous valves
  - Built robust front-end (GUI) in MATLAB for patient arterial and venous physiology data and render with transformations
- Undergraduate Thesis, Aucoin Lab, University of Waterloo
  - Led project investigating essential genes in the baculovirus genome using CRISPR-Cas9 mediated knockout of the gp64 gene
- Laboratory Assistant, Sunnybrook Health Sciences Centre
  - Tested over 1 million patient samples for Covid-19 while working with laboratory technicians and microbiologists
- Analyzed and located genetic markers in positive samples to identify Covid-19 strains
- SEARCH Research Trainee, The Hospital for Sick Children
  - Screen and enroll eligible patients in the ED into research studies
  - Function as the first point of contact for patients and families in the ED
  - Work closely with the ED doctors and nurses

PERSONAL INTERESTS

- Flag Football, World Vision Canada Youth Ambassador, Weight Training, Swimming

Papiha Joharapurkar

DHT

SUMMARY OF SKILLS AND ACHIEVEMENTS

- Committed to applying rigorous critical thinking and problem-solving skills with the aspiration to produce innovative solutions
- Experienced in data analytics in Python/R, and proficiency in visualization tools such as Tableau to retrieve impactful insights
- Strong and empathetic leadership and teamwork skills acquired in previous health research roles by collaborating and mentoring others to accomplish shared objectives
- Exceptional written and verbal communication skills refined from prior responsibilities in communicating results and recommendations to project teams and supervisors
- Excellent organization and time management skills demonstrated by managing multiple competing priorities throughout undergraduate studies

EDUCATION

- Master of Biotechnology, Digital Health Technologies stream, University of Toronto, Class of 2024
- Bachelor of Health Sciences (Honours), Biology and Pharmacology Co-op, Summa Cum Laude, McMaster University Class of 2022

EXPERIENCE AND QUALIFICATIONS

- Space Exploration Research Intern, Canadian Space Agency – Supported development of data framework encompassing spaceflight related health outcomes to advance space medicine
- Intestinal Failure Machine Learning Project Lead, McMaster Children's Hospital – Spearheaded development of predictive framework in Python to generate meaningful insights and predict future patient health outcomes
- Research Analyst Intern, Healthcare Systems Research and Analysis Inc. – Responsible for analyzing, mining and interpreting research from diverse sources in wide range of project areas to meet client needs
- Undergraduate Teaching Assistant, McMaster University – Instructed first-year molecular and cellular biology laboratories to facilitate understanding of laboratory skills and scientific theories
- Research Intern, McMaster University Department of Medicine – Contributed to pre-clinical research efforts in elucidating treatments for idiopathic pulmonary fibrosis
- Research Executive, McMaster Macademics – Managed student volunteers in production of quality academic articles on student health/advice to improve academic success

PERSONAL INTERESTS

- Reading, learning new languages, website design and digital art, and spending time in nature

Sharjeel Khan

DHT

SUMMARY OF SKILLS AND ACHIEVEMENTS

- Excellent communication & listening skills which have been strengthened through volunteer experiences at distress centers
- Strong analytical, critical, and problem-solving skills demonstrated through multiple research projects
- Proficient in statistical & coding platforms such as R, Excel and Tableau with introductory skills in Python
- Robust writing skills cultivated through the responsibility of formulating notebooks and formal lab reports for thesis and research projects
- Demonstrated organization & time management skills by taking on multiple projects as a technologist alongside volunteer activities
- Dedicated team player, demonstrated through the collaborative work with multiple medical technologists and physicians to uphold the values of patient care

EDUCATION

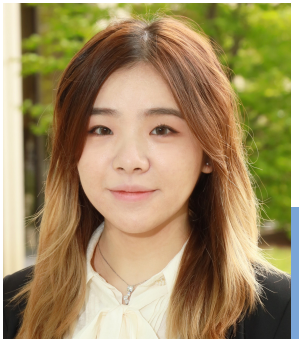
- Master of Biotechnology, Digital Health Technologies stream, University of Toronto, Class of 2024
- Bachelor of Science (Honours), Molecular Biology & Genetics, McMaster University, Class of 2020
  - Dean's Honor List 2016-2020

EXPERIENCE AND QUALIFICATIONS

- Molecular Pathology Technologist, Northwestern Memorial Hospital – performed diagnostic testing using immunoassay analyzers to verify the presence of COVID-19 and other infectious diseases
- Undergraduate Honours Thesis, Xu Lab, McMaster University – performed genetic manipulation to determine the levels and role of trehalose as a stress protectant in the zoonotic fungi Pseudogymnoascus destructans
- Independent Research Project, Jacob Lab, McMaster University – performed various knockouts in trafficking proteins in Drosophila melanogaster to visualize the effects on the cardiovascular system
- Distress Line Volunteer, Distress Centre Halton – provided over-the-phone support to callers suffering from various mental illnesses including severe anxiety, depression and schizophrenia
- Academic Tutor, Oxford Learning Centre – tutored students from K5 – Grade 12 in math, science, and English
- Genetics Researcher, Lurie Children's Hospital – compiled patient data on various genetic testing methods, their outcomes and impact on patient care

PERSONAL INTERESTS

- NBA (Miami Heat fan), video games, film connoisseur, piano



Danni Ma

DHT

SUMMARY OF SKILLS AND ACHIEVEMENTS

- Conscientious, adaptable, and detail-oriented team player, motivated to show conceptual understanding of new topics and apply them to realistic problems.
- High proficiency in R, Excel and Tableau with introductory knowledge in Python and SPSS.
- Strong time management and organizational skills acquired through balancing full-time education, part-time employment, volunteer activities and extracurricular involvement.
- Effective written and oral communication skills cultivated through academic presentations, drafting research papers, and volunteer experiences.
- High proficiency with Canva, Procreate, and BioRender, experienced with visual presentations of scientific information.

EDUCATION

- Master of Biotechnology, Digital Health Technologies stream, University of Toronto, Class of 2024
- Honours Bachelor of Science with High Distinction, Double major in Nutritional Sciences and Human Biology, Minor in Immunology, University of Toronto, Class of 2022
  - Dean's List Scholar (2020-2022)
  - M. Doreen Smith-van der Voort Scholarship in Food Chemistry (2020-2021)
  - Dr. John J. Moran Memorial Award (2020-2021)

EXPERIENCE AND QUALIFICATIONS

- Business Analyst, Panasonic - Conducted research on Canadian market by extracting, compiling, and examining data from internal and external channels to identify critical differences between Panasonic products offered within Canadian and Japanese regions.
- Teaching Assistant, Cumberland College - Collaborated with other volunteers to instruct newly immigrated students, communicating curriculum content effectively to enhance students' English language communication, reading, and writing skills.
- Digital Marketing Manager, Tisdale Lanes - Deployed creative marketing techniques towards enhancing social media presence; established partnerships with 10+ local businesses & organizations.
- Administrative Intern, Tisdale Dental Group - Provided administrative support within various departments, operating computer systems to develop invoices, balance sheets and patient profiles.
- Volunteer, Tisdale & Area Community Action Co-operative Ltd. - provided guidance and detailed recommendations to 15+ community members on nutritional principles, dietary plans, food selection and modification.

PERSONAL INTERESTS

- Illustration and graphic design, crafts, travelling, cooking

Alana McPhail

DHT

SUMMARY OF SKILLS AND ACHIEVEMENTS

- Determined, adaptable, results-driven student.
- Strong academic skills demonstrated through achieving Dean's Honours list every year of undergraduate degree and receiving marketing excellence award for undergraduate marketing course.
- Proficient abilities in R, excel, and version control.
- Novice abilities in python.
- French reading, writing, and speaking, honoured by Ontario French Immersion Certificate.
- Entrepreneurial mindset gained through multiple undergraduate entrepreneurship courses.
- Excellent interpersonal skills developed through years of customer service positions.
- Creative mindset improved through creativity-boosting hobbies.
- Excellent critical thinking and problem-solving abilities.

EDUCATION

- Master of Biotechnology, Digital Health Technologies stream, University of Toronto, Class of 2024
- Honours Specialization in Biotechnology, Queen's University, class of 2022.
  - Dean's Honours list 2018-2022.
- Certificate in Business, Smith School of Business, class of 2022.

EXPERIENCE AND QUALIFICATIONS

- Business fundamentals, marketing, finance, accounting, and organizational behaviour education from the Smith School of Business.
- Over 3 years of experience serving and bartending at golf courses. Learned valuable skills in sales, customer relations, creative problem solving, financial tracking, and managerial responsibilities.
- Experience "inventing" a biotechnology, creating a business plan, and pitching a business idea through two undergraduate seminar courses.
- Practice manipulating, and analysing large datasets in R.
- Novice python abilities through undergraduate creative computing course.
- Training on mentorship foundations, resources, equity, diversity, inclusivity, health, and wellness gained through Queen's upper year peer mentor program.
- Appreciation for many aspects of business gained through working for an extremely successful small business.

PERSONAL INTERESTS

- Snowboarding, golfing, painting, gardening, music, movies, animals, and politics.

Muhammad Musa

DHT

SUMMARY OF SKILLS AND ACHIEVEMENTS

- Highly versatile and adept individual seeking opportunities for growth and acquiring new skills
- Able to deliver high-quality work in a team and individually
- Excellent interpersonal and communication skills owned through experiences in teaching, customer service, and academic research
- Exceptional time management skills and proven ability to deliver in pressured environments evident through great academic standings and extracurricular activities
- Strong analytical and critical thinking skills demonstrated through high academic achievements in related undergraduate biotechnology seminars and biometrics
- Proficient in R, Tableau and Excel with introductory knowledge of Python and SQL

EDUCATION

- Master of Biotechnology, Digital Health Technologies stream, University of Toronto, Class of 2024
- Bachelor of Science - Honours (Distinction), Biotechnology & Chemistry, University of Toronto, Class of 2022

EXPERIENCE AND QUALIFICATIONS

- Events Coordinator, Erindale Biology Society - Recruited professors and graduate students from various science desciplines and managed teams of 20+ volunteers to
  - planned networking events for the UTM undergraduate science community.
  - Received the Dean's Choice Award 2022
- Administrator, Region of Peel: Mass Vaccination Clinics - Assisted incoming patients by confirming appointments and providing accessibility services to improve the clinic's efficiency and patient's overall experience.
- Course Facilitator, UTM - Created weekly lesson plans and led study groups for undergraduate courses that focused on building good study habits and course-specific skills.
- Science and Math Tutor - Mentored high school students to develop personalized course-specific skills enabling them to reach their academic goals.
- Crew Trainer, McDonald's - Trained new employees and led the team to maintain a high-quality service in a fast pace environment while ensuring customer satisfaction.

PERSONAL INTERESTS

- Personalized medicine, nanotechnology, personal finance, NBA, martial arts, health & fitness

Ashley Namini

DHT

SUMMARY OF SKILLS AND ACHIEVEMENTS

- Strong organizational skills with ability to deliver high quality work with minimal supervision
- Gained research and information gathering skills through data acquisition and analysis during work in research laboratory
- Excellent written and verbal communication skills that has been strengthened through various research positions and academic projects
- Proven ability to work effectively in a team environment
- Proficient in various analytical and software tools including R, Python, MATLAB, Excel, and Tableau with experience in High-Performance Computing for computational scientific research

EDUCATION

- Master of Biotechnology, Digital Health Technologies stream, University of Toronto, Class of 2024
- Honours Bachelor of Science in Physics and Mathematical Sciences with High Distinction, University of Toronto, Class of 2022

EXPERIENCE AND QUALIFICATIONS

- Research Student, SickKids Research Institute, Molecular Medicine - Sampled conformational space to generate ensemble models of various intrinsically disordered proteins utilizing new solutions and methodology
- Mitacs Research Intern, University of Toronto - Utilized computational tools including MATLAB and existing python libraries for analysis of Sic1 Molecular Dynamics data
- Mathematics & Physics Tutor, Academy for Mathematics & English - Provided assistance to students in completing school work, monitoring, and documenting their progress and assigning additional work to help with their further understanding of their course work
- Volunteer Classroom Instructor & Test Invigilator, 2019 Kangaroo Math Contest - Facilitated training session for students competing in the competition, presenting useful contest material and assisted in invigilating the exam for the competition
- President, Biomedical Physics Club, University of Toronto - Supervised the operations, management and success of the group through regular communication with other members of the group

PERSONAL INTERESTS

- Computational biophysics, cooking, hiking, martial arts, playing musical instruments

Deweena Parija

DHT

SUMMARY OF SKILLS AND ACHIEVEMENTS

- Highly motivated and enthusiastic about further developing skills related to digital health technologies.
- Demonstrated practical critical thinking skills in various leadership positions that required good decision-making as a Peer Mentor, Medical First Aid Responder and member of the National debate team of Peru.
- Excellent interpersonal and collaborative skills developed while working as a team leader and a social innovation project member.
- Trained in R through experience in an honours undergraduate thesis and graduate courses.
- Eager to gain an in-depth understanding of other coding languages like Python - currently retains introductory skills.
- Outstanding written and communication skills demonstrated through various research roles throughout undergraduate studies.

EDUCATION

- Master of Biotechnology, Digital Health Technologies stream, University of Toronto, Class of 2024
- Honours Bachelors of Science (High Distinction), Biotechnology Specialist with a Minor in Chemistry - University of Toronto, Class of 2022
  - Dean List of Scholars
  - University of Toronto Scholar

EXPERIENCE AND QUALIFICATIONS

- Undergraduate Honours thesis, University of Toronto - Demonstrated a case study based analysis on the effects of pseudoreplication on a hierarchical sampling design using R.
- Undergraduate Researcher, University of Toronto - Authored a literature review on the FDA's regulation of vaccine trials and collaboratively built and analyzed a survey investigating the perception of vaccine safety.
- Researcher, Darmstadt University of Technology (Germany) - Mastered FISHQuant (MATLAB add-on) to identify effects of DNA damage by 5-FU (Chemo drug) on transcription mediated by p53 proteins.
- Team Lead, Centre of Student Engagement (CSE), University of Toronto - Developed leadership workshops and mentorship curriculums, was recognized in the CSE Spotlight issue for leadership efforts and facilitating team engagement.
- Head of Training, Debate club, University of Toronto - Lead and collaborated with a team to plan a curriculum for training university students of multiple skill levels in debating.

PERSONAL INTERESTS

- Video games, data science, medical device regulation, raising plants, travelling and eating good food.

Olivia Paunkoff

DHT

SUMMARY OF SKILLS AND ACHIEVEMENTS

- Experience with data visualization through Tableau through coursework and introductory knowledge of PowerBI.
- Skilled in R, PowerPoint, Word, Excel and introductory knowledge of Python, SQL, and cloud technologies.
- Refined verbal and written communication through fourth-year research literature review project on the use of CRISPR to excise the latent HIV-1 proviral genome from human cells (grade: 95%).
- Advanced critical thinking and data analysis skills particularly in the context of medical devices and pharmaceuticals developed through coursework and work experience.
- Ability to provide excellent quality of work both independently and in a team setting.
- Demonstrated creativity and strong presentation skills by receiving first place in a research proposal competition on the impact of nicotine vaping on male fertility.
- Strong foundation in IT consulting and web design, data cleaning and machine learning.

EDUCATION

- Master of Biotechnology, Digital Health Technologies stream, University of Toronto, Class of 2024
- Bachelor of Science majoring in Biomedical Sciences (Honours), University of Guelph, Class of 2021

EXPERIENCE AND QUALIFICATIONS

- Client Care Coordinator at Cleveland Clinic – On the business development team, worked with marketing and sales departments to develop strategies to increase volumes and create outreach campaigns for the Executive Health Program.
- Infusion Clinics Coordinator - Managed daily operations of 14 infusion clinics and developed procedures to streamline patient journey by collaborating with a team of doctors, nurses, and business development executives. Prepared two new clinics for opening resulting in on-boarding 200+ patients.
- Patient Care Specialist – Coordinated drug reimbursement for all neurological patients of specialty biologics costing up to ~ $10,000 per dose.
- President of the Spéro Foundation Guelph - Built on-campus organization dedicated to alleviating poverty of at-risk youth by coordinating 16 club executives and held presentations to organize fundraising events for hygiene products.
- Marketing and Donor Recruitment Executive for Canadian Blood Services – Held presentations and created digital marketing campaigns for donation events resulting in a 100% full donation clinic at all events.

PERSONAL INTERESTS

- Skiing, golf, reading, attending concerts, machine learning, sewing, and cooking.

Imran Rhemtulla

DHT

SUMMARY OF SKILLS AND ACHIEVEMENTS

- Thrives in new environments due to high levels of curiosity and eagerness to learn important skills
- Excellent interpersonal skills as demonstrated in student leadership, peer mentorship, and pharmacy assistant roles
- Highly capable at working in a team and individually proven through success in individual undergraduate research, group research projects, and case competitions – Compass Case Competition, Best Use of the Social Sciences (2020)
- Proficient learner demonstrated through Featured Creator and Best Infographic awards as part of the COUHRxTIDBIT program despite no previous graphic design experience
- Exceptional written communication skills developed through coursework and academic success
- Proficient in R, Tableau, Python, SQL, PowerBI, and Excel

EDUCATION

- Master of Biotechnology, Digital Health Technologies stream, University of Toronto, Class of 2024
- Bachelor of Medical Sciences (Honours Specialization: Microbiology and Immunology), Western University, Class of 2022
    - Dean's Honour List (2019-2022), Graduated with Distinction (2022)

EXPERIENCE AND QUALIFICATIONS

- Undergraduate Honours Thesis, Western University – Utilized R and flow cytometry to analyze gene and protein expression, respectively, of adrenoreceptors in human MAIT cells (grade: 92/100)
- President, UWO Pharmacology – Coordinated a team of 15 executives to oversee a club of 70+ members interested in healthcare and technology.
- Medical Terminology Educator, UWO HOSA – Created lesson plans and tutored 13 club members in preparation for provincial and national contests
- Infographic Designer, COUHR x TIDBIT – Created monthly visual abstracts on medical research to be featured on the online TIDBIT platform
- Pharmacy Assistant, Foundry Pharmacy – Responsible for researching required inventory by maintaining correspondence with local physicians and accounts to ensure profits
- Project Member, Western University – Leveraged online databases and PyMol to identify *Staphylococcus aureus* TSST-1 inhibitors *in silico*.

PERSONAL INTERESTS

- Fitness, Cooking, Personalized Health Technology, Video Games, Exercise is Medicine

Crystal Valdez

DHT

SUMMARY OF SKILLS AND ACHIEVEMENTS

- Highly motivated, inquisitive, solution-oriented individual dedicated to fostering positive team dynamics and enhancing project outcomes
- Strong analytical skills through clinical data and basic science research analyses
- Robust science communication through roles writing manuscripts, presenting research at conferences, writing and editing for the university science newspaper
- Active community leader through roles of Co-Chair of Doctors Without Borders (MSF) Research Conference and Alzheimer's Society for local and global outreach
- Excellent communication and problem-solving skills gained through mentorship of students from all backgrounds and special needs as a tutor and swim instructor
- Proficient in R, Excel, SQL, Tableau, GraphPad with introductory knowledge in Python & C.

EDUCATION

- Master of Biotechnology, Digital Health Technologies stream, University of Toronto, Class of 2024
- Bachelor of Medical Sciences (Honours Specialization: Physiology & Pharmacology), Western University, Class of 2022
- Western Continuing Admissions Scholarship ($10000) - Dean's Honor List

EXPERIENCE AND QUALIFICATIONS

- Research Student, Immunodeficiency Clinic, Toronto General Hospital – Conducted lab protocol and analyses in STOP-CoV study, investigating feasibility of using self-collected blood spots to determine antibody levels after SARS-CoV-2 vaccine. Efficiently integrated multiple databases using REDCap and EPR software.
- Honours Thesis Student, Drug & Safety Lab, Western University - Determined viral activation in patients with drug hypersensitivity reactions.
- Manuscript writer, Biostatistics Department, Western University – Investigated primary care attachment among migrant groups prior to psychotic disorder diagnosis using modified Poisson regression model and variance estimators on ICES data.
- Google Data Analytics with R programming certificate– Using SQL, R programming and Tableau to conduct and present analyses.
- Publication of systematic review and meta-analysis - Oral cannabinoid for prophylaxis of chemotherapy-induced nausea. Searched MEDLINE, Embase, and Cochrane databases.

PERSONAL INTERESTS

- Biking, fashion, board games, crochet, music

Breanna Vasko

DHT

SUMMARY OF SKILLS AND ACHIEVEMENTS

- Versatile and detail-oriented individual with a strong record of achieving goals
- Exceptional communication and interpersonal skills through years of experience in sales, community work, and teamwork-based extracurricular activities
- Proficient in R and basic Excel knowledge
- Active in leadership roles shown through first-team all-city female soccer award and executive positions in academic clubs
- Excellent scientific-based communication skills gained from thesis presentations
- Strong critical and applied thinking gained from scientific research experience

EDUCATION

- Master of Biotechnology, Digital Health Technologies stream, University of Toronto, Class of 2024
- Honours Bachelor of Science, Specialization in Neuroscience, University of Windsor, Class of 2022
- Dean's Honours List 2020-2022

EXPERIENCE AND QUALIFICATIONS

- Undergraduate Research Thesis, Dason Lab, University of Windsor – Explored the effects of NCS-1 protein homologue Frequenin with respect to learning and behaviour and its potential areas of expression in the nervous system
- Teaching Assistant, University of Windsor – Instructed and aided students in their Principals of Neuroscience course meanwhile proving students with course feedback
- Sales Associate, Sephora Canada – Built personal client connections and met daily sales goals through teamwork with fellow employees
- Clinical Volunteer - Assisted Dr. Magbule Doko with administrative duties and shadowed patient interactions during COVID-19 vaccine clinics
- Vice President of the University of Windsor's Pre-Medical Society – Hosted community-wide events while leading a team of 25 in event/fundraiser planning and outreach programs

PERSONAL INTERESTS

- Neuroscience, sales, collecting music, cosmetic drugs, soccer, and travelling

Ning Xu

DHT

SUMMARY OF SKILLS AND ACHIEVEMENTS

- Self-motivated, results-driven, and goal-oriented individual
- Excellent skills in project management and verbal communications gained from rich professional and project experiences
- High proficiency in R, SPSS, Tableau and Excel with introductory knowledge in Python, C, Racket, Linux, Bash, Tablet, ChimeraX, Coot and Seaview
- Solid knowledge grounding in interdisciplinary knowledge involving Health & Regulatory, Data Science, and Business
- Proven ability to work well with teams or individually across multiple functional areas and prioritize tasks to meet objectives
- Highly driven individual with strong marketing and business savvy, data analytics and lab skills
- Flexibility to work in a dynamic context to deal with challenges with effective approaches

EDUCATION

- Master of Biotechnology, Digital Health Technologies stream, University of Toronto, Class of 2024
- Honours Bachelor of Science (Dean's Honours) - Biochemistry/Biotechnology Specialization/ Bioinformatics Option, University of Waterloo, Class of 2022
  - President's Scholarship of Distinction ($2000)

EXPERIENCE AND QUALIFICATIONS

- Honours Thesis Student (Courtenay Lab), University of Waterloo – Determined if environmental DNA metabarcoding can be used to replace or complement beach seining to characterize estuarine fish assemblages of the southern Gulf of St. Lawrence, Canada; co-authored a presentation for ACCESS/BoFEP 2022 conference
- Laboratory Assistant, University of Waterloo – Engaged with hundreds of students and three supervisors in Chemical Engineering; maintained and calibrated 30+ lab equipment per week, reduced downtime from software and equipment failure by 25%; managed inventory of lab supplies and developed comprehensive manuals
- Nurse Assistant (Volunteer), Sunnybrook Health Sciences Centre – Provided fundamental patient care under the direction of nursing staff while completing administrative tasks
- Undergraduate Research Project, University of Waterloo – Designed a mutation of *Saccharomyces cerevisiae* CMC2 gene using CRISPR

PERSONAL INTERESTS

- Personalized therapy, travelling, reading, swimming, learning to dance and hiking with my dog

NOTES

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