Abishek Nirupan Bhuvanaratnam

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EDUCATION

Bachelors of Science, Molecular Biology and Immunology/Diseases

University of Toronto, Toronto, Ontario, Canada

UofT Student Engagement Award – 2021
 Covid-19 Infographics and mass media campaign: Addressing vaccine hesitancy and mental health challenges in Sri-Lanka

Healthcare Analytics: AI, Big Data & Digital Transformation | Demystifying Healthcare Data to Enhance Patient Care

Rotman School of Commerce (University of Toronto), Toronto, Ontario, Canada

CAREER RELATED SKILLS (including any technical skills) and Accomplishments.

- Fluent in English and Tamizh communication both written and oral communication
- GITHUB, MS (Word, Excel/Office), R Coding, Python
- Machine Learning in Clinical Informatics
- Proficient in Epic (UHN), Certifications:
 - Epic Research Fundamentals Oncology [UHN]
 - Canada GCP (CITI Program)
 - Health Canada Division 5 Drugs for Clinical Trials Involving Human Subjects (CITI Program)
 - Health Canada Regulations for Clinical Trials Involving Drugs and Biologics [UHN]
- Publication: Bio-Pesticidal Applications of Neem in Coconut and Cocoa within Sri-Lanka and Ghana: A
 Systemic Review: (UofT) Proceedings of the 27th Annual Technological Advances in Science, Medicine, and
 Engineering Conference 2023
- Established and Led the Creation of UTSC's first ever Carrom Club at the University of Toronto, driving its inception, growth, and activities. Pioneered the club's formation, attracting members and orchestrating initial events, enhancing campus vibrancy.

WORK EXPERIENCE

Junior Technical Aid - Biochemical Genetics

North York General Hospital, Toronto, Ontario

June 2023 – April 2024

- Assisted with several Research Projects
- Worked with LifeCycle, Paradigm, EMR
- Maintained accurate records with the assigned research project
- Assisted with sample/data search, Analysis, Collation and Entry
- Communicated with PA's to ensure all details are accurate for research activities and ensuring all items are received
- Able to monitor the drive used for storing archived scans

Junior Market Analyst - Intern

Husky Technologies, Bolton, Ontario

August 2022 – December 2022

- Collaborated with Market Research Leads to execute business strategies, informing and leveraging market targeting strategies and identifying potential partnerships.
- Conducted statistical analysis on historical sales performance for smaller regions, identifying valuable companies/prospects and optimizing market share expansion efforts.
- Utilized data analytics techniques to perform clean-ups and segment analysis via pivot tables and if statement functions on Microsoft Excel, determining opportunities for converting glass packaging to plastic PET packaging for energy savings.
- Present weekly industry updates and analytical insights to the market intelligence team and supervisor, providing data- driven recommendations for business decisions.

Clinical Research Student (Drug Development Program Phase I)

Princess Margaret Cancer Centre, Toronto, Ontario

May 2021 - June 2022

- Managed healthcare/clinical trial data, ensuring accurate and consistent entry, retrieval, and proofing of information, including adverse patient symptoms
- Collaborated with healthcare professionals to maintain patient files and ensure high-quality data entry/analysis, tracking, and reporting
- Utilized electronic systems such as Quadra med, EPR, and EPIC to maintain patient files, conduct data analysis, and track inventory
- Supported cross-functional responsibilities, including inventory management, documentation, and coordination with healthcare analysts.

VOLUNTEER AND COMMUNITY ACTIVITIES

Hackathon Experience, DS3 Datathon 2024

January 2024

- Participated in a week-long hackathon competition focused on solving diverse real-world problems.
- Achieved notable fourth-place finish among competing teams.
- Developed predictive models for three challenges:
 - Celestial Object Classification (97% accuracy)
 - Heart Disease Prediction (83% accuracy)
 - Traffic Signal Recognition (98% accuracy)
- Utilized Python (scikit-learn, TensorFlow, OpenCV, PyTorch, numpy) and R coding.
- Applied ML techniques, including logistic regression, k-means clustering, and decision trees.
- Demonstrated adaptability by addressing diverse real-world problems and delivering high-accuracy solutions.

Machine Learning Engineer Student, Dr. Rageen Ravendran's Lab

November 2023- Present

- Collect and preprocess clinical data for DMD patients, using Pandas.
- Contribute to building and validating the machine learning model. (TensorFlow, Seaborn, Keras, PyTorch)
- Identify significant clinical data points for predictions.
- Engage in ongoing research, feedback mechanisms, and sustainability efforts.
- In Association with UofT Temerty Centre for AI Research and Education in Medicine University of Toronto

Clinical Informatician, Toronto Metropolitan University, Toronto, Ontario

August 2023 – Present

- Working in Dr. Aziz Guergachi's lab for the purposes of conducting research on Primary Care Electronic Medical Record Data
- Currently working for a non-profit project called PREVENT which is a program that utilizes EMR data and a predictive algorithm to identify patients at high risk and encourage those individuals to implement sustainable lifestyle modifications at home to prevent Diabetes.
- Using the Electronic Tool DAWN to help patients being educated about pre-diabetes.

Club President, Indian Students' Association (University of Toronto), Toronto, Ontario June 2023 – April 2024

- Led a team of 20 students in planning events with over 700 attendees to unite and celebrate the Indian Culutre
- Promoted from Director of Finance (August 2022 May 2023)
- Delegated tasks and responsibilities to several of the executive committee and led/mentored all of the members.

R Programming Instructor, The Bridge Church for All Nations, Pickering Ontario. January 2022 – March 2022

- Proficiently tutored a diverse group in coding R, creating an inclusive learning environment, and adapting teaching methods to various learning styles of the participants.
- Designed and delivered comprehensive R programming lessons, covering fundamental concepts with realworld examples and practical exercises.
- Provided personalized assistance to address coding challenges, fostering a growth mindset, and empowering participants in data analysis using R.
- Implemented effective assessment strategies, including quizzes and exercises, to track progress and document tangible skill development throughout the tutoring program.