

# Simon Hampton

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## TECHNICAL SKILLS

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**Languages:** Python, R, Bash, C, C++, SQL, HTML, Racket  
**Libraries:** Pandas, NumPy, PyTorch, TensorFlow, Scikit-Learn, Pysam  
**Tools:** Git, VSCode, Excel, PowerBI, Notion, Canva

## PROJECTS

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- User Segmentation for CxC 2024** | *Pandas, Numpy, SQL* April 2024
- Won first place in OwnersBox Challenge of UW DSC CxC 2024 Hackathon
  - Used Pandas and SQL to interpret behavioural trends for users, identifying suspicious activity and further classifying users into risk buckets based on spending habits
- Excel Fantasy Hockey Forecast Tool** | *Excel, Power BI* December 2023
- Built a spreadsheet tool with advanced Excel functions to calculate in-season hockey rankings
  - Created insightful Power BI dashboards for individual players and matchups

## EDUCATION

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- University of Waterloo** Waterloo, ON  
*Honours Mathematics - President's Scholarship of Distinction* Sep. 2023 – Apr. 2028  
GPA: 3.62/4 — Clubs: UW DSC, UW Tech+, AWS Cloud Club, Waterloo Hockey Club
- Alexander Mackenzie High School** Richmond Hill, ON  
*International Baccalaureate Diploma Programme* Sep. 2019 – June 2023  
96.3% Top 6, Club Founder, Social Media Manager for 2 clubs with 2000+ combined Instagram followers

## EXPERIENCE

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- Data Analyst Intern** May 2024 – July 2024  
*Geneseeq Technology Inc.* Toronto, ON
- Created a model in Python that evaluates limit of detection of multi-cancer early detection machine learning models leading to a 65% increase in precision of ctDNA fraction estimation compared to the previous standard
  - Used Pandas and shell scripts to automate data analysis pipelines, including joining, cleaning and graphing results for over 200 total mutations in 7 samples
  - Implemented DNABERT-2 model using PyTorch and HuggingFace Transformers for binary prediction of cancer
  - Collaborated closely with senior bioinformaticians to understand their data analysis and presentation preferences, ensuring reports were tailored to meet requirements
  - Presented project results in hour-long presentation to team of over 20 members of full-time staff
- Private Swim Instructor** Aug. 2023 – Sep. 2023  
*Bayview Hill Pool* Richmond Hill, ON
- Simultaneously taught two children aged 6 and one child aged 13 with vastly different swimming abilities
  - Adapted lesson plans to observed abilities to maintain progress
- National Lifeguard/Swim Instructor** Oct. 2022 – June 2023  
*City of Richmond Hill* Richmond Hill, ON
- Communicated professionally with patrons, addressing concerns and ensuring a positive and safe pool environment
  - Administered First Aid and rescued patrons in danger of drowning
  - Evaluated proficiency and issued individualized report cards for each swimmer

## SOFT SKILLS

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**Leadership** and communication used in all aquatic roles to guarantee safety and efficiency  
**Adaptability** to different course loads that contributed to long-standing academic success  
**Drive** and heightened motivation derived from a background in competitive sports