

# Hien Le

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## EDUCATION

### Toronto Metropolitan University (TMU)

Toronto, ON, Canada

Graduated April 2024

- Bachelor of Science (BSc) in Computer Science
  - GPA: 3.84 / 4.33 ; Award: Dean's List 2021, 2022, 2023

## TECHNICAL SKILLS

- **Machine Learning/Statistics:** Tumor Detection, Binary Patch Classification, Survival Analysis, Statistical ML (Forests, SVMs), Deep Learning (RNNs, Autoencoders, CNNs, GANs, Transformers), Transfer Learning, NLP, Data Mining, Feature Extraction/Engineering
- **Software Tools:** R, Python (TensorFlow, Keras, Pytorch, Sklearn) (4+ yrs experience), SQL (NoSQL, MySQL, BigQuery) (3+ yrs), Data (Tableau, PowerBI) (2yrs), Linux/Unix Shell Scripting (3+ yrs), MATLAB (4+ yrs), Java, Git, Javascript, React, Swift, OpenGL, C/C++
- **Cloud platforms/Container technologies:** Google Colab, AWS, Jupyter Notebook; Docker, Kubernetes

## PROFESSIONAL WORK EXPERIENCE

### Data Management - Research Assistant

May 2023 - Present

Toronto, ON, Canada

- *IBMLAB - Biomedical Engineering - [Dr. April Khademi](#) (PI)*
  - Apply advanced machine learning models in Python and MATLAB to train tumor detectors, significantly enhancing model accuracy by 15% through innovative processing techniques such as augmentation, color normalization applied to raw datasets
  - Conduct research to master HER2 classification methodologies represented in the HEROHE challenge such as Resnet, Densenet, EfficientNet, Multi-instance Learning, etc., showcasing versatile expertise in digital pathology
  - Optimized medical data storage, reducing space needs by 80% through the implementation of effective patching methods: fully patched WSIs, partially patched from ROIs, further optimizing the storage and accessibility of medical imaging data
  - Pivoted and transformed data for improved data visualization dashboards, allowing for monitoring and reporting on KPIs across various functions and enhancing decision-making by 50%
  - Liaised with prestigious institutions, such as the University Health Network (UHN), to obtain 500+ raw data samples, demonstrating a proactive attitude to data acquisition and utilization

### Data Analyst Intern

May 2022 - September 2022

Lam Dong, Vietnam

- *HT General Clinic - Medical and Healthcare*
  - Queried weekly large sets of 700 patient data using SQL, re-organized the data on Excel, and further analyzed the data using PivotTable to identify key patterns in patient visits, which contributed to strategies that increased customer acquisition by 25%
  - Implemented database automation with Task Scheduler (Windows) to streamline routine maintenance tasks, reducing manual labor by 20+ hours/week, allowing for more resources to be allocated to other initiatives
  - Pioneered a predictive analytics model to forecast patient visit trends and comparable services' market performance to reinvent the company's strategy that resulted in potential revenue increase of 15% every month
  - Collaborated with the database management team of 4 to ensure the integrity and security of healthcare databases, resulting in the reduction of data entry errors by 20% through rigorous QA protocols
  - Generated comprehensive reports on database performance and trends with Tableau, providing actionable insights for optimizing clinic operations, which resulted in a 12% increase in operational efficiencies and successful cost-cutting initiatives

### Database Administrator

November 2021 - April 2022

Toronto, ON, Canada

- *Mathnasium - Math Learning Center*
  - Developed a system that provides real-time updates on employees' responses to surveys on current operations, enhancing project oversight and reducing decision-making time by 50%
  - Demonstrated effective leadership in maintaining and optimizing database operations within the learning center, resulting in a 10% increase in data management efficiency
  - Played a pivotal role in coordinating various aspects of the center's activities, ensuring smooth data management processes and a conducive environment for students' educational development
  - Excelled in database administration tasks, ensuring the delivery of high-quality data services to support educational initiatives. Utilized VLOOKUP functions to streamline scheduling processes, saving 90% of scheduling time
  - Integrated the database network with a new student management system, resulting in a 200% boost in workflow efficiency

## PROJECTS:

### World Happiness Report: <https://github.com/h11le/World-Happiness-Report>

- Analyzed the raw open-source World Happiness Report dataset represented in Excel file using R and ShinyApp, examining factors influencing global happiness levels including annual GDP, social support, health life expectancy, etc.
- Utilized ggplot2 and Plotly for creating interactive and dynamic visualizations to understand happiness determinants

### TMU Classified: <https://github.com/v-likithan/tmu-classified>

- Developed a React web platform designed to facilitate classified advertisements within the TMU community, enabling users to buy, sell, or trade goods and services, utilized MongoDB to oversee ads, users, site settings, and chat repositories
- Conducted unit tests using testing frameworks (i.e., Jest and React Testing Library), resulting in robust code coverage