

Hien Le

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EDUCATION

Toronto Metropolitan University (TMU)

Toronto, ON, Canada

Graduated June 2024

- Bachelor of Science (BSc) in Computer Science
 - GPA: 3.84 / 4.33 ; Award: Dean's List 2021, 2022, 2023, 2024

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

Research Assistant

May 2023 - Present

Toronto, ON, Canada

- *IAMLAB - Biomedical Engineering - [Dr. April Khademi](#) (PI)*
 - Applied advanced machine learning models in Python and MATLAB to train tumor detectors, achieving a 15% improvement in model accuracy through innovative data processing techniques such as augmentation and color normalization.
 - Conducted in-depth research on HER2 classification methodologies, including Resnet, Densenet, EfficientNet, and Multi-instance Learning, to address challenges in the HEROHE competition, demonstrating versatile expertise in digital pathology and statistical analysis.
 - Optimized the storage of medical imaging data by 80% through the implementation of effective patching methods for Whole Slide Images (WSIs) and Regions of Interest (ROIs), enhancing database efficiency and data accessibility.
 - Transformed and pivoted raw data into meaningful visualizations using advanced dashboard tools, significantly improving the monitoring and reporting of key performance indicators (KPIs) and enhancing decision-making capabilities by 50%.
 - Collaborated with prestigious institutions, such as the University Health Network (UHN), to acquire over 500 raw data samples, demonstrating a proactive approach to data acquisition and effective stakeholder management.

Data Analyst Intern

May 2022 - September 2022

Lam Dong, Vietnam

- *HT General Clinic - Medical and Healthcare*
 - Queried and analyzed large datasets comprising over 700 patient records weekly using SQL, reorganized data in Excel, and utilized PivotTable for pattern analysis, contributing to a 25% increase in patient acquisition strategies.
 - Automated routine database maintenance tasks with Task Scheduler (Windows), reducing manual labor by over 20 hours per week and allowing the reallocation of resources to other strategic initiatives.
 - Developed a predictive analytics model to forecast patient visit trends and market performance of comparable services, resulting in a potential 15% increase in monthly revenue through improved strategic planning.
 - Collaborated with a team of four database management professionals to ensure the integrity and security of healthcare databases, implementing rigorous quality assurance protocols that reduced data entry errors by 20%.
 - Generated detailed reports on database performance and trends using Tableau, providing actionable insights that increased operational efficiencies by 12% and supported successful cost-cutting measures.

Database Administrator

November 2021 - April 2022

Toronto, ON, Canada

- *Mathnasium - Math Learning Center*
 - Developed a comprehensive system for real-time updates on employee survey responses related to operational processes, enhancing project oversight and reducing decision-making time by 50%.
 - Led efforts to maintain and optimize database operations, increasing data management efficiency by 10%.
 - Coordinated center activities to ensure smooth data management and a conducive learning environment.
 - Utilized VLOOKUP functions for data cleaning and to streamline scheduling processes, saving 90% of scheduling time.
 - Integrated a new student management system with the database network, boosting workflow efficiency by 200%.
 - Managed all aspects of database design, data backup, and disaster recovery planning, ensuring the reliability, security, and availability of educational data for continuous support of learning initiatives.

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