# JOHN LIN

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## EDUCATION

**University of Toronto, MScAC, Artificial Intelligence in Healthcare**      **Sep. 2024 to Dec. 2025**

**Concordia University, BCompSc (GPA: 3.90)**      **Sep. 2020 to May 2023**

Bachelor of Computer Science; Computer Science General Program
- Relevant coursework: Data structures and algorithms, data analytics, big data, machine learning (ML), artificial intelligence (AI), databases (MySQL), web development, information retrieval and web search

**McGill University, MSc, Experimental Medicine**      **Sep. 2016 to May 2019**
- Thesis: IL-6 signalling in pulmonary exacerbations in Cystic Fibrosis, for Dr. Simon Rousseau, PhD

**McGill University, BSc, Physiology**      **Sep. 2012 to Jun. 2016**

## EXPERIENCE

**Software Engineer, Machine Learning Infrastructure and Developer Experience**      **Jul. 2023 to Aug. 2024**

Stealth Startup
- Designed and implemented system architecture for a no-code automated statistical analysis and ML platform.
- Developed the architecture for a synthetic data generator to create test fixtures for ML model validation.
- Piloted cross-OS development through containerized development environments for developer consistency.

**Software Developer Intern, Platform and Shared Services**      **May 2022 to Jan. 2023**

SSENSE
- Implemented and deployed an automated PubSub subscription manager for message queues, reducing multiple bottlenecks and manual configuration to a single step, saving 50+ developer-hours/month.
- Designed and deployed a Jenkins pipeline for API Gateway logging configuration in 8 different business domains, reducing manual configuration and errors while ensuring reproducibility.

**Research Assistant, HIV and Infectious Diseases, Gastrointestinal Immunity**      **Jan. 2019 to Nov. 2021**

Research Institute of the McGill University Health Centre
Supervisor: Dr. Jean-Pierre Routy, MD, FRCPC
- Determined statistical correlations between biological markers and health outcomes through wet lab and clinical studies in people living with chronic infectious diseases such as HIV and cytomegalovirus (CMV).
- Contributed to over 25 scientific publications, including 4 articles as first author.

## SKILLS

Python, C/C++, Java, Rust, JavaScript, Git, Jenkins, AWS, SQL, Apache Spark, Docker, Hadoop, Machine Learning

## SELECTED PUBLICATIONS [FULL LIST]

Ouyang, J.*, Isnard, S.*, **Lin, J.*,** Fombuena, B., Peng, X., Routy, J.-P., & Chen, Y. (2020). Convalescent Plasma: The Relay Baton in the Race for Coronavirus Disease 2019 Treatment. *Frontiers in Immunology*, *11*, 570063. https://doi.org/10.3389/fimmu.2020.570063

Ouyang, J.*, **Lin, J.**\*, Isnard, S.,& Routy, J.-P. (2020). The Bacterium Akkermansia muciniphila: A Sentinel for Gut Permeability and Its Relevance to HIV-Related Inflammation. *Frontiers in Immunology*, *11*, 645. https://doi.org/10.3389/fimmu.2020.00645

## SELECTED PROJECTS

**Automated NLP on Targeted Subdomains**      **Sep. 2023 to Oct. 2023**

GitHub Repository | Python, Docker, Scrapy, Scikit-Learn, AFINN, GitHub Actions
- Automated web scraping on a targeted subdomain, extracting text tokens using ETL techniques for K-means clustering and sentiment analysis.

**Predicting COVID-19 Waves**      **Dec. 2021 to May 2023**

GitHub Repository | Python, Pandas, NumPy, Matplotlib, Seaborn, Cufflinks, Facebook Prophet, Jupyter
- Used ETL techniques, ML and synthetic data along with Facebook Prophet to predict future waves of COVID-19 in Canada using data provided by Health Canada.