

# Noah Frank

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## WORK EXPERIENCE

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### MACHINE LEARNING ENGINEER I & II

Nov. 2021 - Jun. 2024

#### Action (Replica Analytics)

Victoria, BC (Remote)

- Developed a scalable synthetic data generation SaaS product, integrating machine learning models into production-level software
- Optimized large-scale ML pipelines and algorithms using distributed clusters with technologies such as PySpark and Ray
- Collaborated closely with data science to apply research findings into production, improving product quality and performance
- Deployed an automated benchmarking system to track model metrics, validating the product requirements between releases

### DATA SCIENCE AND MACHINE LEARNING INTERN

Jun. 2021 - Aug. 2021

#### XplorSpace

Vancouver, BC (Remote)

- Trained a real-time computer vision model on maritime vessel data for detecting and monitoring offshore vessel movements
- Developed a proof-of-concept time series model to predict continuous blood pressure measurements non-invasively
- Prepared detailed reports to communicate ML findings to stakeholders of varying technical backgrounds effectively

### NETWORK SOLUTIONS SPECIALIST CO-OP

May 2019 - Aug. 2019

#### Nokia

Ottawa, ON

- Developed automation scripts for router configuration to enhance the network management user experience
- Automated testing and validation of customer network configurations using Python, improving configuration reliability
- Generated data-driven reports to visualize the impact of automated network configurations

### WEB SOFTWARE DEVELOPER CO-OP

May 2018 - Aug. 2018

#### Nokia

Ottawa, ON

- Developed software to organize and visualize customer network traffic for an internal network management tool
- Created and maintained full-stack web applications using Java, SQL, and JavaScript
- Coordinated software development with an agile team of developers and provided detailed reports on progress

## EDUCATION

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### MASTER OF ENGINEERING, ELECTRICAL & COMPUTER

May 2020 - Apr. 2021

#### McMaster University

Hamilton, ON

- Graduated Summa Cum Laude, 4.0 GPA
- Relevant Courses: Digital Signal Processing, Data Science, Matrix Computations in Signal Processing

### BACHELOR OF ENGINEERING, ELECTRICAL & BIOMEDICAL

May 2020 - Apr. 2021

#### McMaster University

Hamilton, ON

- Graduated Summa Cum Laude, 3.6 GPA
- Relevant Courses: Statistics, Data Structures and Algorithms, Modelling of Biological Systems

## PROJECTS

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### MAMMOGRAM SEGMENTATION U-NET

- Developed a deep learning-based segmentation model for pectoral muscle detection in mammograms, a key component in medical image analysis and early-stage breast cancer screening

### BOARD GAME GENRE CLASSIFIER

- Implemented an NLP-based classification system using logistic regression, applying natural language processing techniques for the analysis and categorization of board games based on genres

## ADDITIONAL

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**Technical Skills:** Machine Learning, Distributed Computing, Data Analytics, Data Modeling, Data Visualization

**Languages:** Python, R, SQL

**Tools and Frameworks:** Scikit-Learn, Pandas, Spark, Numpy, Scipy, MLflow, Jupyter, GitHub, Docker

**Certifications & Training:** IBM Machine Learning Professional Certificate (Coursera)

**Involvement:** NeuroTechX McMaster Student Club, McMaster Artificial Intelligence Society