NOAH FRANK

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EDUCATION

Master of Engineering, Electrical & Computer

McMaster University

May 2020 – Apr. 2021 | Hamilton, ON

- Graduated Summa Cum Laude, 4.0 GPA
- Relevant courses: Digital Signal Processing, Data Science

Bachelor of Engineering, Electrical & Biomedical

McMaster University

Sep. 2016 – Apr. 2020 | Hamilton, ON

- Graduated Summa Cum Laude, 3.6 GPA
- Relevant courses: Statistics, Data Structures and Algorithms

EXPERIENCE

Data Science and Machine Learning Intern

XplorSpace

Jun. 2021 – Aug. 2021 | Vancouver, BC (Remote)

- Implemented a computer vision model to detect and track the movement of offshore vessels with 81% mAP @ 0.5 IoU
- Developed a time-series model to predict continuous blood pressure measurements non-invasively within 3 mmHg
- Applied research findings to improve accuracy of computer vision model by 10%

Network Solutions Specialist Co-op

Nokia

May 2019 – Aug. 2019 | Ottawa, ON

- Refined the network management user experience by automating router configuration
- Collaborated with the automation team to develop YAML scripts for configuring network nodes
- Automated testing and validation of customer network configurations using Python
- Generated reports to visualize and evaluate the impact of automated network configurations

Web Software Developer Co-op

Nokia

May 2018 – Aug. 2018 | Ottawa, ON

- Developed data visualizations of network traffic for Nokia's network management software
- 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 project progress

SKILLS

Technical Skills:

Statistics, Data Analytics, Data Modeling, Data Visualization, Machine Learning, Debugging

Languages:

Python, R, SQL, MATLAB, Java, JavaScript, C

Tools and Frameworks:

TensorFlow, Keras, Pandas, Jupyter Notebook, JIRA, GitHub, Microsoft Excel

PROJECTS

Mammogram Segmentation U-Net

Python, TensorFlow, OpenCV

- Developed a computer vision system to perform the segmentation of pectoral muscles in mammograms for breast cancer screening
- Implemented modified U-Net segmentation model and fine-tuned model parameters to achieve 99% anatomical accuracy

Board Game Genre Classifier

Python, Scikit-learn, Web Scraping

- Predicted board game genres from their descriptions to automatically tag new games using logistic regression and NLP
- Retrieved data and descriptors by web scraping BoardGameGeek.com using Beautiful Soup

Data Science Course Projects

R, LaTeX

- Conducted regression, clustering, and classification for statistical analyses using R
- Generated reports in LaTeX to present insights

Patient Information Anonymizer

MATLAB, DICOM

- Developed software to automate the anonymization of personal information in medical images
- Coordinated with physicians and researchers to ensure quality of patient data for research

INVOLVEMENT

NeuroTechX McMaster Student Club

- Created EEG processing pipelines as part of the signal processing team

McMaster Artificial Intelligence Society

- Attended hands-on tutorials to develop basic skills for working with data and machine learning

Hatch Coding

- Led after-school coding classes as a programming instructor for elementary students