

NICO VAN DEN HOOFF

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EDUCATION

Master's of Data Science

2021 – 2022

University of British Columbia

- GPA: 4.33/4.33
- Curriculum: Supervised and unsupervised learning, deep learning, software development, frequentist and Bayesian statistical inference, data visualization.

Bachelor of Technology, Accounting

2012 – 2015

British Columbia Institute of Technology

PROJECT PORTFOLIO

RICH AI Particle Classification 🔗 | Python (PyTorch, XGBoost, pandas, NumPy, H5py), Singularity

2022

- Final capstone project completed in partnership with TRIUMF and CERN during Master's degree at UBC.
- Implemented two binary classification graph neural network models based on recent academic research.
- Trained and tuned models in parallel using a stack of 8 GPUs and a data set consisting of 11 million examples.
- Model performance exceeded CERN's prior recall score metric achieved in their prior "NA62" research project.

Indoor Scene Detector 🔗 | Python (PyTorch, Flask), JavaScript (React), Docker, Heroku, aws s3

2022

- Full-stack computer vision application capable of classifying images of indoor scenes (e.g. bedroom).
- Employed transfer learning to build four deep learning models, and deployed models to the cloud.
- Created Docker container for local development, and CI/CD pipeline for code base.

Reddit Data Collector 🔗 | Python (pandas, PRAW), PyPI

2022

- Developed a Python package that can be used to collect post and comment data from Reddit for further analysis.
- Implemented CI pipeline for code base.

Towards Data Science Article 🔗 | Python (pandas, Altair, PyGitHub, geopy)

2021

- Collected data via GitHub's API on thousands of popular machine learning and deep learning repositories.
- Authored an article for Towards Data Science that was selected as a Editors' Pick and featured as a "Hands on Tutorial".

EXPERIENCE

Patriot One Technologies

July 2022 - Present

Junior Machine Learning Scientist

- Role begins July 18, 2022.

KPMG LLP

2018 - 2021

Senior Accountant / Consultant

- Performed consulting engagements for banking, wealth management, manufacturing, and real estate clients.
- Managed the audit of one of the firms largest financial institution clients for three years (\$23B in assets). Led a team of 10-15 individuals each year and oversaw all project management. Spearheaded automation initiatives, improving the overall profitability of the engagement by at least 10% each year.
- Implemented a PowerBI dashboard in the above audit, used to display key engagement procedures performed, and to create visualizations that were presented to senior leadership.
- Held the role of "Digital Champion" within the financial institutions practice. Led initiatives on how to apply data visualization and automation in client engagements.
- Obtained the highest possible performance ranking of top 5% within peer group in final two years of employment.
- Prepared reports on the findings of engagements and presented them to senior and executive level management.
- Mentored 4 junior staff throughout their successful completion of the CPA accounting program, including the final exam.

Baker Tilly LLP

2015 - 2018

Staff Accountant

- Provided a range of financial services to clients in the film and entertainment, media, and manufacturing industries.

TECHNICAL SKILLS

Languages: Python, SQL, R, Java

Python libraries: PyTorch, scikit-learn, NumPy, pandas, SciPy, Flask, Matplotlib, seaborn, pytest

Other Tools: aws, Docker, Git, GitHub, VS Code, PowerBI, \LaTeX

LICENSES & CERTIFICATIONS

Coursera: Deep Learning Specialization (DeepLearning.AI), Machine Learning (Stanford University)

CPA Canada: Chartered Professional Accountant (Canadian National Honour Roll on entrance exam, top 1% in Canada)