

# NICO VAN DEN HOOFF

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## EDUCATION

### Master's of Data Science

2021 – June 2022 (expected)

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

### NA62 Particle Classification | Python (PyTorch, XGBoost, LightGBM)

2022 (In progress)

- Final capstone project in partnership with TRIUMF and CERN as part of Master's of degree at UBC.
- Developing a deep learning model for purposes of classifying sub-atomic particles, to be used in CERN's NA62 project.
- Working with an unbalanced dataset that contains 11 million examples for 3 classes.

### 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 multiple deep learning models, and deployed 4 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

### 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 (advanced), SQL (proficient), R (proficient), Java (academic)

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

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

**Statistical learning:** Deep learning (CNNs, ANNs), Supervised Learning (Linear/Generalized Linear Models, Support Vector Machines, Ensembles), Unsupervised Learning (PCA, DBSCAN, Clustering)

## LICENSES & CERTIFICATIONS

**Amazon Web Services:** AWS Certified Cloud Practitioner (expected May 2022)

**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)