

David Witka

Machine Learning Engineer
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EDUCATION

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|----------------------------|-----------------------|------|
| Computer Science B.Sc. | University of Toronto | 2015 |
| Full Stack Web Development | Udacity NanoDegree | 2021 |

HIGHLIGHTS OF QUALIFICATIONS

Machine Learning Engineer with 7+ years experience managing machine learning life-cycles end-to-end plus 4+ years as a Python Developer developing web applications and extensions, all in the education sector.

EMPLOYMENT EXPERIENCE

Machine Learning Engineer, Humber College
Nov 2018 – Current

- Using a linear regression algorithm analyzed college enrollment data to determine best marketing segment for future students increasing market capture by 17%.
- Developed an NLP model to analyze student feedback, identifying areas for improvement and increasing student satisfaction by 25%.
- Used clustering techniques to segment students based on learning preferences, tailoring curriculum offerings and improving course engagement by 15%.
- Created 15+ ETL pipelines (to train data-sets) and 20+ ML pipelines training, assessing, and deploying models.
- Scrubbed data from multiple sources: databases, web analytics, internet, surveys and reports.
- Well versed in deep learning techniques such as classification, regression, clustering, natural language processing and recommendation systems.
- Daily and proficient use of python library technologies, numpy, pandas, scikit-learn, matplotlib, for data analysis, modeling, and representation.

Python Developer, Humber College
Jan 2016 – Nov 2018

- Created web applications that Implemented role-based control design patterns, authentication, and authorization, designed with key security principles in mind.
- Developed extensions for Office Suite, Adobe Suite, Autodesk AutoCad, and other software.
- Provided training for new hires to progress up to speed on our current tech stack and systems.
- Collaborated with PM's and technicians to develop software extensions to streamline repetitive tasks.
- Used development technologies Python, Flask, Github and software deployment technologies AWS, EKS, Docker, Kubernetes, and CodePipeline to build web applications.
- Created API's, readme files, and systems specifications for users and developers.

CS Tutor, University of Toronto
Sept 2011 – Aug 2014

- Taught computer science undergrads key concepts of programming in Java , C++, C, and Python.
- Concepts included OO programming, exception handling, unit testing, debugging, file systems, linked lists, recursion, inheritance, functional programming, algorithms, and sorting.

PROJECTS

The Traveling Salesman Problem which is one of my favorite problems to think about and is the current feature in my latest project can be found on github. ManiMaps uses the Google Maps API and a tsp algorithm to return an optimal route. Please have a look: <https://github.com/dwitka/ManiMaps>