# Ted (Tec Yan) Yap

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#### **EDUCATION**

#### **NEW YORK UNIVERSITY**

MS IN DATA SCIENCE Expected May 2022 | New York, NY

#### ILLINOIS WESLEYAN UNIVERSITY

BS IN COMPUTER SCIENCE BS IN MATHEMATICS MINOR IN FINANCE May 2020 | Bloomington, IL Presidential Scholarship (full-ride) Magna Cum Laude

#### **LINKS**

Github:// tedyap LinkedIn:// ted-yap

Cum. GPA: 3.8 / 4.0

## COURSEWORK GRADUATE

Intro to Data Science Probability & Statistics (Passed Society of Actuaries Probability Exam) Linear Algebra & Optimization Machine Learning\* Natural Language Processing\* Big Data\* (\* Spring 2021)

#### **UNDERGRADUATE**

Advanced Accounting Financial Statement Analysis Artificial Intelligence Functional Programming Computer Architecture Numerical Analysis Calculus Series (Teaching Asst 2x)

#### **SKILLS**

#### **PROGRAMMING**

Python • R • SQL • C++ • Java HTML • CSS • JavaScript • Assembly

#### TOOLS/FRAMEWORKS

AWS • Google Cloud Platform PySpark • Apache Beam • Redis • Flask

#### **DATA SCIENCE**

PyTorch • Tensorflow • SciKit-Learn SciPy • NLTK • Seaborn • Tableau Scrapy • BeatifulSoup • Selenium

#### **SOFTWARE ENGINEERING**

Git • Agile • Docker

### **EXPERIENCE**

## MACHINE LEARNING ENGINEER INTERN AT INSIGHT DATA SCIENCE

Jun 2020 - Aug 2020 | New York, NY

- 32 out of 1500 applicants chosen to be an Al Fellow Summer 2020.
- Built **SkinCredible**, an end-to-end machine learning pipeline that helps dermatologists analyze and monitor skin conditions over time.
- Trained an image classifier in **Tensorflow** that uses **CNN** and **LSTM** to discover time series patterns in 500GB of proprietary image dataset.
- Parallelized model training across multiple cloud GPUs to reduce training time.
- Leveraged **AWS Comprehend** to extract sentiments from dermatologists' notes and create proxy-labels for unlabelled dataset.
- Deployed model as a **REST API** hosted on **AWS EC2** in a Docker container.

#### **DATA ENGINEERING INTERN** AT ADVANCE TRADING INC

Jan 2020 - May 2020 | Bloomington, IL

- Developed modularized scripts for ETL pipelines with Apache Beam and Google Cloud Dataflow to migrate data from relational to NoSQL cloud databases.
- Built a database cache with **Redis** to reduce query processing time.
- Implemented a 'serverless' architecture with **Google Cloud Functions** to automatically pull data from **BigQuery** and generate daily margin reports, saving 5+ hours of analysts' time per day.

## RESEARCH STUDENT AT ILLINOIS WESLEYAN UNIVERSITY

Jan 2020 - May 2020 | Bloomington, IL

- Conducted research on using Generative Adversarial Networks (GANs) to detect anomalies in text.
- Developed and published **ARAE-AnoGAN**, a mix model of autoencoders and GANs with word embeddings to detect short anomalous sentences in a document. Built in **Tensorflow** with custom loss functions.

#### **OPERATIONS & TECHNOLOGY ANALYST INTERN** AT CITI

Jun 2019 – Aug 2019 | Kuala Lumpur, Malaysia

- Performed comprehensive exploratory analyses on credit card transactions using **Python** with **SQL** queries to uncover predictive signals of fraudulent accounts, in order to minimize financial loss.
- Automated fraud analyst scorecard generation using **VBA**, reducing human error and the time to generate feedback from one month to a day.

## **HIGHLIGHTED PROJECTS**

## NYC RESTAURANT INSPECTION | DATA SCIENCE CLASS PROJECT Sep 2020 - Present | New York, NY

- Conduct feature engineering on restaurant inspection dataset to predict whether a restaurant will violate food safety regulations.
- Extract sentiments from Yelp reviews and test various classification models with Spark MLlib (Logistic Regression, SVM, Decision Tree) to optimize AUC.
- Process and join restaurant inspection dataset with Yelp reviews using PySpark.

## ANSWER CORRECTNESS PREDICTION | KAGGLE COMPETITION

Aug 2020 - Present | New York, NY

• Train an attention based transformer neural network with **PyTorch** to predict the correctness of students' answers to multiple-choice questions.