Jing Yang **Fan**

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Professional Experience

Data Scientist — *2021*

City of Toronto - Research and Analytics Team

- Lead the design and development process of analytical and visualization dashboards in **Tableau** which **reduced** the frequency of ad-hoc data requests on our team by **80%**. Dashboards are currently being used by city planners, managers, and directors on a daily basis
- Took the lead on analyzing cell phone usage data in **Python** to identify changes in park usage in the city due to the onset of the COVID-19 pandemic
- Presented analysis findings to department directors and walked them through recommended follow-up action items to take advantage of the findings. Received heavy interest in furthering this work and others with future expansions to the data set

Software Engineer — *2020*

Doxim Solutions - Research and Development Team

- Designed and implemented a C#-based data **pipeline** to connect to an external third-party database, make transformations, and feed it into the internal database
- Conducted analysis on inefficient coding practices and presented findings to encourage a change to a more robust system
- Created pattern recognition software to streamline the conversion of legacy PowerShell scripts into concise and repeatable C# components
- Queried credit union user data from internal database for analysis using **SQL**

Projects

Cryptocurrency React Dashboard — *Self Project*

- Created a **React** dashboard application to display comprehensive information about different cryptocurrencies
- Fetched cryptocurrency data from a REST endpoint using **Redux toolkit**. Data included historical pricing, daily volume, news articles, exchanges, and more
- Application was made to be compatible on both mobile devices and desktop computers with varying display sizes. Utilized design components from **Ant Design** to achieve modernized look and feel

Toronto Real Estate Analytics Dashboard — *Self Project*

- Created a real estate dashboard using **Plotly** to visualize trends in housing prices in Toronto. Data can be aggregated based on location (wards and neighborhoods), size of property (sqft), and amenities (bed + bath)
- Data was scraped from various real estate listing websites using the **Selenium** and **BeautifulSoup** packages in **Python**
- Cleaned and linked data to geospatial layers using **GeoPandas** and **Shapely**

Generating Game Data Using REST API — *Self Project*

- Built **Python application** to auto-generate rating reports for board games, by obtaining reviews and statistics from BoardGameGeek's API and feeding the data through a **Natural Language Processing** model
- Utilized application to identify common trends and key qualities in board game popularity

Sentiment Analysis Using Deep Learning Models — *Academic Project*

- Applied **NLP** methods to calculate sentiment scores of over 200K product reviews from IndieGoGo and KickStarter, then used resulting scores to model and assess product success
- Constructed multiple **Neural Network** models in **TensorFlow** using FastText and GloVe embeddings
- Best model could be trained in **less than 5 minutes** and achieve AUC scores **greater than 90%**

Education

Western University — *London, ON, Canada*

Masters in Data Analytics — *2019 - 2020*

- Relevant Courses: Data Consulting, Unstructured Data, Business Skills for Data Scientists, Artificial Intelligence II, Databases, Statistical Modelling, Generalized Linear Models, Banking Analytics

B.M.Sc in Biochemistry of Infection and Immunity — *2015 - 2019*

- Dean's Honour List (2015-2019)

Technical Skills

Languages Python · JavaScript · C# · Java · Solidity

Technologies TensorFlow · ElasticSearch · NLTK · React · NodeJS · Jenkins · Git · LaTex · Jira