

# Desmond Fung

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GitHub: <https://github.com/ddhangdd>

## EDUCATION

### University of Wisconsin-Madison

*Double Major: B.S. in Computer Science and B.S. in Statistics, 2021*

- Coursework: Database Management Systems, Deep Learning, Machine Learning, Probability & Discrete Mathematics, Introduction to Operating Systems, & Introduction to Algorithms

## EXPERIENCE

### Macroview Telecom Limited, Hong Kong *Software Development Intern*

June 2018 - August 2018

- Designed and built a user submit/response form within a LifeRay Portal using data captured within MySQL
- Configured LifeRay IDE and deployed modules in LifeRay
- Installed Ansible on Linux and connected it to the local server utilizing VMware and Putty
- Leveraged knowledge in LifeRay IDE, MySQL, and HTML, to debug applications running on Tomcat

## PROJECTS

### Song Popularity Predictor [GitHub Link](#)

- Implemented machine learning models e.g. KNN, SVM, Decision Tree, bagging and more for Spotify song popularity prediction on 19,000 songs, achieved 80% accuracy on average
- Conducted feature importance analysis with XGBoost and Random Forest
- Utilized: Python, Scikit-Learn, Mlxtend

### Data Science in Madison: Property Values in Madison [GitHub Link](#)

- Developed an app to visualize Madison's assessment area and evaluated the fairness of property assessment
- Discovered that homes in predominantly minority areas were assessed fairly
- Presented findings to the City of Madison and City Assessor detailing the quality of existing assessment areas
- Utilized: Python, Pandas, GeoPandas, Matplotlib

### Stock Prediction [GitHub Link](#)

- Built a recurrent neural network using the LSTM architecture on time-series data
- Compared predictive performance against other machine learning algorithms
- Utilized: Python, PyTorch, NumPy

### Music Feature Visualizer [GitHub Link](#)

- Built an interactive visualization application with JavaScript, HTML, and CSS to showcase how songs develop over time
- Wrangled song data stored in CSV file format and implemented mouse-over functionality using D3
- Utilized: JavaScript, HTML, CSS, D3

## PERSONAL INFORMATION

- U.S. Citizen
- 4476 Foothill Trail, Vadnais Heights, MN
- (Willing to relocate)
- 612-889-3272

## TECHNICAL SKILLS

- Python (e.g. PyTorch, Scikit-learn, NumPy, Pandas, Matplotlib, TensorFlow)
- R (e.g. dplyr, ggplot2),
- Java
- SQL
- MongoDB
- C
- JavaScript
- React.js
- Express.js
- Node.js
- HTML
- CSS
- Git
- Tableau
- Unix
- Linux
- Visual Studio Code