

# Kai Ye

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| <b>EDUCATION</b>                         | <b>Master of Science in Electrical Engineering and Computer Engineering</b> Expected Graduation Dec. 2020<br>University of Minnesota-Twin Cities, College of Science and Engineering, Minneapolis, MN<br>GPA 3.896                                                                                                                                                                                                                                                                                     |
|                                          | <b>Bachelor of Science in New Energy Science and Engineering</b> May 2019<br>The Chinese University of Hong Kong-Shenzhen, School of Science and Engineering, Shenzhen, China<br>Participated in the integrated BS-MS program with University of Minnesota-Twin Cities<br>GPA 3.30                                                                                                                                                                                                                     |
|                                          | <b>Summer Exchange in Electrical Engineering</b> June 2017 - August 2017<br>Technische Universität Dortmund, Dortmund, Germany                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Related Experience &amp; Projects</b> | <b>Machine Learning on Yelp photo classification</b> Spring 2020<br>Artificial Intelligence (CSCI5511), University of Minnesota-Twin Cities <ul style="list-style-type: none"><li>Developed and optimized multiple-instance multiple-label learning strategy on an image database with 500k photos from Yelp Inc., labelling 10k restaurants using 9 attributes with 82% accuracy</li><li>Analyzed and compared shallow feature descriptors and deep neural networks in image classification</li></ul> |
|                                          | <b>Duplicate Classification on Quora Question Pairs</b> Fall 2019<br>Introduction to Nonlinear Optimization (EE5239), University of Minnesota-Twin Cities <ul style="list-style-type: none"><li>Adopted NLP techniques with SVM to classify duplicate question pairs on Quora.</li><li>Processed four types of extracted features by different data analysis techniques</li><li>Indicated a convincing scheme to solve near-duplicate detection problems on other online forums.</li></ul>             |
|                                          | <b>Comprehensive design of a residential PV system</b> Spring 2019<br>Modeling, Analysis, and Control of Renewable Energy Engineering (EE8744), University of Minnesota-Twin Cities <ul style="list-style-type: none"><li>Revised a grid-connected roof mounted PV system of 30 kW</li><li>Optimized the orientation, tilt angle, connection, and MPPT control of PV panels</li><li>Analyzed the reliability of the system with efficiency and economic benefits</li></ul>                             |
|                                          | <b>Undergraduate Research Assistant, Advisor: Xi Zhu</b> September 2017 – August 2018<br>Institute of robotic and intelligent manufacturing, Shenzhen, China <ul style="list-style-type: none"><li>Investigated in developing and improving multi-exciton organic PV cells with singlet fission</li><li>Analyzed the intrinsic properties of different crystal forms with Machine Learning</li></ul>                                                                                                   |
|                                          | <b>Graduate Teaching Assistantship, Advisor: Philip Cohen</b> Spring 2020<br>University of Minnesota-Twin Cities, Department of Electrical Engineering and Computer Engineering                                                                                                                                                                                                                                                                                                                        |
| <b>Awards</b>                            | <b>Dean's list award</b> 2017-2018<br>The Chinese University of Hong Kong-Shenzhen, School of Science and Engineering                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Interests</b>                         | <b>Amateur Designer and Photographer</b> <ul style="list-style-type: none"><li>Worked as student assistant in the Communication and Public Relations Office at CUHK(SZ), authorized for photography and post-processing for over 100 school activities and forums</li><li>Co-organized the 6<sup>th</sup> Shenzhen International Industrial Design Fair in 2018, attracted nearly 100k viewers</li></ul>                                                                                               |
|                                          | <b>Journalist Intern</b> May 2018 - July 2018<br>Shenzhen Media Group, Shenzhen, China <ul style="list-style-type: none"><li>Reported more than 30 daily news on regional station</li><li>Conducted field research in entrepreneurs and migrant workers</li></ul>                                                                                                                                                                                                                                      |