

Chong-Yang SHI

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EDUCATION

Southern University of Science and Technology (SUSTech), College of Science - *Major GPA: 3.78/4.00* Shenzhen, Guangdong
Major: Bachelor of Science, Statistics Supervisor: Siu-Hung CHEUNG, Bing-Yi JING Expected Graduation: 08/2022

Honors/Awards:

- 2021 Mathematical Contest in Modeling (Honorable Mention)
- 2020 Contemporary Undergraduate Mathematical Contest (Third Prize of Guangdong Province)
- 2020 Contemporary Undergraduate Mathematical Contest in Modeling (Third Prize of Guangdong Province)
- 2020 Interdisciplinary Contest in Modeling (Successful Participant)
- 2019 Contemporary Undergraduate Mathematical Contest in Modeling (Third Prize of Guangdong Province)

Scholarships: Freshmen Scholarship of SUSTech

Major Coursework:

Statistical Linear Model, Multivariate Statistical Analysis, Computational Statistics, Real Analysis, Bayesian Statistics, Generalized Linear Model, Network Science and Computing, Time Series Analysis, Applied Stochastic Processes, Mathematical Statistics, Statistical Computation and Software (R Program), Sample Survey.

Coursera Online Courses – Grade: 100% *Major: Computer Science and Data Science* Website: <https://www.coursera.org/>

Major Coursework: Machine Learning, Deep Learning and Neural Network, Python for Everybody, Python Data Structure.

PROGRAM EXPERIENCE & ACADEMIC DEVELOPMENT

2020 GEARS Program, North Carolina State University

Topic: Solar Panel Energy Prediction Study Supervisor: Majed Al-Ghandour Raleigh, NC State 08/24/2020 – 03/02/2021

- Conducted a literature review for cost of solar energy for three types: residential, commercial building and farm solar.
- Built a data environment, such as data preparation, cleaning, meta data, and ETL (Extract Transform Load).
- Applied multiple linear regression (MLR) model for variable selection and used computer vision algorithms (CV) for solar panels.
- Applied a time series model (SARIMA) to predict the trend of solar energy production over time.
- Established random forest (RF), support vector machine (SVM), neural network (ANN) models to predict solar energy generation.
- Conduct investment regression analysis (ROI) and give reasonable suggestions for investing in solar energy.
- Produced a poster to report the results, and was evaluated as excellent leadership and independent research ability.

Summer 2020 Data Science Program, North Carolina State University – Grade: 100% (A+)

Topic: Stocks Price Prediction Study Supervisor: Majed Al-Ghandour Raleigh, NC State 07/06/2020 – 07/17/2020

- Learned to use Tableau, Python and completed one project, two labs and three discussion on Tableau, Python.
- Used Python for basic machine learning and natural language processing.
- Used linear regression, random forest algorithm and support vector machine (SVM) to predict the price and daily return of stocks.
- Produced a PPT to report the results, and was evaluated as the perfect completion of the task.

INTERNSHIP EXPERIENCE & LEADERSHIP DEVELOPMENT

Global Training Initiative of NC State University

Student Ambassador <<Publicity>>

Raleigh, NC State

07/2020 – 07/2021

- Collected information for Summer Data Science Program.
- Publicized the programs of NC State University to students in China.

Communist Youth League

Minister of Organization and Training Department <<Leadership>>

Shenzhen, Guangdong

06/2019 – 09/2020

- Formulated organizational constitution and regulation.
- Organized skills training course and held group day events.
- I won the honor of Excellent League Member and Excellent Student Cadre.

OTHER SKILLS & INTERESTS

Computer languages: << Python, C/C++, Java, MATLAB, Mathematica, GNU Octave, R, LaTeX >>

Tools: << Jupyter notebook, Spyder, Tableau, Origin, Microsoft Applications (Excel, Word, PowerPoint) >>

Research Interests: << Financial Econometrics, Statistical Learning, High-dimensional Statistics, Network Data Analysis >>