

# Ziqi Guo

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## EDUCATION

<b>Harvard University</b> Master of Engineering in Computational Science & Engineering <i>Courses: Systems Development, Time Series, Data Science, Data Visualization</i>	Cambridge, MA Expected May 2019
<b>Singapore University of Technology and Design</b> Bachelor of Engineering in Engineering Systems & Design Specialization in Economics & Operations Research, Minor in Information System Technology & Design <i>GPA: 4.90/5.00, summa cum laude, Honors List, Accenture Analytics Edge Award, Keppel Award of Excellence</i>	Singapore Aug 2017
<b>University of Waterloo</b> Exchange student at Department of Engineering	Waterloo, Canada Aug 2016 - Dec 2016

## PROFESSIONAL EXPERIENCE

<b>Ernst &amp; Young Singapore</b> <i>Advisory Intern, Data Analytics, Advisory Services</i>	Singapore May 2016 - Aug 2016
<ul style="list-style-type: none"><li>Engaged in multiple management consulting projects to help organizations solve problems and improve business performance through data analytics</li><li>Carried out linear models and text mining with SPSS and R to help clients understand their business performance</li><li>Implemented projects deliverables through advanced analytics and complicated research processes</li><li>Coordinated client meetings and communicated analytics findings effectively</li></ul>	
<b>Singapore University of Technology and Design</b> <i>Teaching Assistant, Modeling the Systems World</i>	Singapore Jan 2016 - Apr 2016
<ul style="list-style-type: none"><li>Course topics: mathematical modeling, differential equations, optimization, algorithms, networks</li></ul>	
<b>Singapore-MIT Alliance for Research and Technology</b> <i>Analytics Intern, Future Urban Mobility</i>	Singapore May 2015 - Aug 2015
<ul style="list-style-type: none"><li>Involved in statistical analyses using R and GIS for a project studying urban transportation in Singapore</li><li>Manipulated massive transportation dataset and identified patterns through statistical inference; compiled the results into a 20-page report and presented to stakeholders</li><li>Built a stochastic model that simulated traffic flows with Monte Carlo methods</li><li>Developed an R Shiny web application hosting interactive data visualizations on urban freight movement</li></ul>	

## PROJECTS

<b>Singapore University of Technology and Design, AI Coursework Project</b> <i>Cancer Tumor Classification</i>	Singapore May 2017 - Aug 2017
<ul style="list-style-type: none"><li>Studied cutting-edge methods in the field of deep learning through convolutional neural networks</li><li>Trained and fine-tuned an Inception-ResNet CNN on a cancer tumor dataset, achieving around 90% accuracy</li><li>Developed a web application hosting the application, able to predict in almost real-time and provide diagnostics for predicted class</li></ul>	
<b>Singapore University of Technology and Design, Capstone Consulting Project</b> <i>Multi-Algorithmic Prediction Portal for Market Data</i>	Singapore Jan 2017 - Aug 2017
<ul style="list-style-type: none"><li>Extensively researched time series forecasting and benchmarked the client's existing demand forecasting algorithm</li><li>Implemented models including ETS, ARIMA, Multiple Linear Regression and SVR; conducted a comprehensive assessment of model performance and accuracy; built ensemble models that improved accuracy by 24%</li><li>Developed a Python application that encapsulates demand forecasting, data visualization, descriptive analysis and report generation with an optimized user experience</li></ul>	
<b>Singapore University of Technology and Design, Undergraduate Research</b> <i>Feature Selection on Classification of Synthetic Network Dataset</i>	Singapore May 2016 - Dec 2016
<ul style="list-style-type: none"><li>Implemented multi-class SVM on synthetic networks dataset to gain insights into different generative models</li><li>Applied state-of-the-art multi-objective feature selection techniques in network science to identify the most informative subsets of features</li></ul>	

## SKILLS

- Computer:** Python, R, SQL, JavaScript, HTML, CSS, Linux Shell, AMPL, LaTeX, SPSS, QGIS
- Language:** English, Mandarin