https://bohenglin.github.io

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# **SKILLS**

- **Databases**: Access, PostgreSQL & Azure data factory, DataBricks, data engineering **Programming Languages**: SAS, Python, R, HTML

Visualization: Tableau & PowerBI

- Analytics: Unsupervised (clustering) and supervised (regression) machine learning. Statistics, Web scraping, GIS, background in economics and finance.
- **Communication**: Bilingual in Chinese Mandarin and English, event planning and execution.

#### **EDUCATION**

#### Tufts University

M.S. Data Analytics

December 2020

Recipient of Data Analytics Scholarship 2019, GPA: 3.7/4.0;

Courses: Data analysis (python, R, Matlab), database (PostgreSQL), data visualization (Tableau), econometrics, probabilities, statistics, quantitative reasoning and urban planning.

## University of Massachusetts Amherst, USA

**B.S.** Resource Economics

August 2019

Recipient of Chancellor's Scholarship 2017 and Faculty Award for Academic Excellence Scholarship 2019;

Cumulative GPA 3.85/4.0, Dean's List every term, outstanding Academic Achievement by the Honour Society of Phi Kappa Phi 2018;

Courses: Micro- & Macro-economics, econometrics, statistics for businesses, data analysis (python, Excel, Access, SAS), price theory, game theory, industrial organization, fundamentals of finance, marketing, accounting and management.

Anglo Chinese Junior College, Singapore Singapore-Cambridge GCE A Level Certificate

December 2016

- Graduated in top 10% of the class, with 5 distinctions in Singapore-Cambridge GCE A Level 2016;
- Scholastic Merit Award.

# PROJECTS (All projects)

Image Compression using Singular Value Decomposition (Matlab)

Used singular value decomposition to assess the effects of compressing an image of 1528\*1225 pixels using the top 10, 25, 50 and 100 largest singular values and explore the possible optimum number of singular values to be used for the compression.

# Exploring the inconsistency of KMeans in identifying breast cancer cells using principal components

Used principal component analysis and dimension reduction to facilitate KMeans algorithm to assess the consistency and accuracy of classifying malignant and benign breast cancer cells;

Compared classified label to the original label and determined low applicability of using KMeans on PC dimension reduced dataset.

# Exploring the Representativeness of Batting Average on Major League Baseball Players' Performances (Python)

Used pandas, re, requests, and bs4 (BeautifulSoup) to perform web scraping, extracting MLB players' scores with about 350 entries;

Used sklearn and pandas to perform ridge regressions, linear regressions, supervised machine learning and principal components analysis to assess the representativeness of the batting average score on MLB players' performance.

- CT Level Analysis on Gun Violence And the Demographics in Boston, Massachusetts (R Language)
   Used dplyr, clusteval, rgdal to perform supervised learning, K-Means clustering and linear regression on data set with 1400 entries;
- Used rgeoda, sf, geosphere and GeoDa to perform geospatial clustering on 1400 entries of data
- Conducted quantitative and qualitative analysis on gun violence and the demographics in Boston from 2010 through 2018 link

#### **EXPERIENCE**

# Retail Business Services LLC, a company of Ahold Delhaize USA

**June 2020 – Dec 2020** 

Business Intelligence & Analytics Co-op

- Responsible for technical design and development of business intelligence solutions, constructed copy data pipeline independently in Azure data factory;
- Using pyspark, sparklyr, SparkR and SQL to convert a local R script that accepts and analyses small datasets into a script on Databricks that utilizes clusters to accepts and analyses yearly data with daily entries consisting of millions of records.

**China Blue Sustainability Institute** 

**April 2020 - Present** 

Project Assistant Intern

Explored and assisted in developing database for iFISH project, including fishing related data collection,

data analysis and methodology development;
Analysed and construct visualizations based on collected data and constructed analysis reports published on company's public WeChat account, with highest views of 900+, most number of shares by other organizations of 140 times, and most number of new followers of 30.

# Carmichael Dining Center, Tufts University, Medford

**September 2019 – May 2020** 

Student Manager

Assisted in various dining units in providing quality services, able to multitask under stress and fast pace working environment;

Supervised and effectively communicated with all student workers complete assigned tasks timely;

Bridged between the management team and student workers to achieve operational and customer service objectives.

### Shenzhen SME Credit Financing Guarantee Group Co. Ltd Shenzhen, China

May 2019 - Aug 2019

Assistant to Manager Intern

- Compiled and analysed the Group's internal data including guarantee amounts, mortgages and projects completion statues, and reported relevant findings to respective managers;
- Processed projects data including data gathering, data cleaning and cross validation for '2019 SME integrity list':

Independently reviewed and analysed SMEs' balance sheets and profit and loss statements;

Collaborated with legal department and finance department of the Group on several projects and new mortgages.

# **Isenberg School of Management**

September 2018 – December 2018

Massachusetts Small Business Development Center, Springfield

**Business Consultant Intern** 

Conducted market research and reviewed business plans for clients;

- Prepared and analysed financial projects for clients including profit and loss and balance sheets;
- Met with clients to advise them on both marketing strategies and financial cash flows.

#### University of Massachusetts Amherst Dinning Hall, Amherest Student Worker

**September 2017 – May 2019** 

Prepared ingredients, made sushi and deli sandwiches and served food, able to complete given tasks independently.

# Din Tai Fung (Tampines Mall), Singapore

**June 2015 – February 2016** 

Provided quality service under fast pace environment, able to multi-task under pressure.

# **Buddhist Compassion Relief Tzu Chi Foundation, Singapore**

March 2014 – May 2016

Member Volunteer

Actively engaged in monthly community recycling and campaigning, carried out activities at a care home.

# Berries World School of Learning (TPCL) Pte Ltd, Singapore

**March 2014 – December 2015** 

Teaching Assistant

Assisted six teachers in the conduction of lessons from primary one to three, smoothly worked with teachers with different teaching styles.

#### **ACTIVITIES**

#### **University of Massachusetts Amherst**

The Honour Society of Phi Kappa Phi member

March 2019 – March 2020

International Student Ambassador

December 2017 – December 2018

Coordinated information sharing and outreach for potential applicants from Singapore and China.

Chinese Music Association

**September 2017 – May 2019** 

Treasure and Signature Responsibility Officer, responsible for budgeting and fundraising for the group.

**Anglo Chinese Junior College** 

Competitive Swimming Team

January 2015 – December 2016

Boys' Team Captain. Finalist in the 57th National Schools Swimming Championship (Singapore)