RUI KANG CHEN

ruikchen@gmail.com · (929)-382-0969 · 880 68th street 4C · Brooklyn, NY

Education

Stony Brook University   Class of 2021
Major: Information Systems and Applied Mathematics
Relevant Coursework: Data Structures, Scripting languages, Survey of Probability & Statistics, Foundations of Computer Science, Calculus II, III, IV
GPA: 3.13

The Bronx High School of Science   Class of 2017
Specialization: Math and Science
Awards: 1st place invention for High School shark tank
GPA: 3.4

Skills

Programs: Microsoft Office Suite (PowerPoint, Word, Excel, Access), Affinity Photos, TinkerCad (3D Modeling)
Languages: Chinese (Cantonese and Mandarin)
Programing: Java (Object Oriented Programming), MYSQL
Scripting Languages: Python/Dash, R, Perl, Command Line (Linux/Ubuntu), JavaScript/D3, Mininet & Nginx
Markup: LaTeX

Experience

BBR Networking Research   June 2020 - December 2020
Research Assistant
- Worked with PH.D students to observe the effects of the BBR algorithm on video experiments
- Conducted video experiments on Ubuntu 18.04 platform using Mininet and Nginx
- Ran experiments by setting up a network topology of a host, router, and client, and then analyzing quality of video stream between cubic and BBR networking algorithm
- Tested how bandwidth, burst, and buffer size affect video quality and then graphed data using scripts

Bronx Science Design Institute   June 2017 - August 2017
Team Member
- Bronx High School of Science's "Shark Tank", awarded first place out of five teams for best invention
- Co-created the Easy-Carry Handle, a handle-like device that attaches to hard to carry objects through straps to allow users to carry said objects
- Modeled invention in TinkerCad, a 3-D modeling program used for prototyping early concepts of an invention.
- Operated laser cutter to cut out objects in wood and acrylic
- Pitched invention in front of judges who consisted of Bronx Science Alumni, Google software engineers, mechanical engineers, journalists, and business managers

---

Projects

R Multi Regression Modeling (2019)
- Processed a large scale of data points through R, that consisted of four environmental variables and twenty genetic variables that was modeled after the studies of Caspi et al
- Analyzed and created different statistical models using different R libraries like MASS, knitr, and leaps
- Created a linear regression model for data to determine the significance of the mass data
- Used the Bayesian Information Criterion to determine which generated multi-regression model best fit the data

Data Visualization for Carbon Footprint in Python Dash (2019)
- Used Python Dash library to visualize the "2016 Global Ecological Footprint" dataset
- Graphed and visualized 188 countries using heat maps, scatter graphs and parallel graphs through Dash
- Looked at correlation between the human development index and carbon footprint of each country as well as other factors like GDP