Lucy Wan

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Education

UC BERKELEY | CLASS OF 2023

- Intended Major: Computer Science
- Relevant Classes: CS 61A (Structure and Interpretation of Computer Programs), CS61B (Data Structures), EE16A (Design Information Devices and Systems I), CS370 (Intro to Teaching CS), CS97 (Office Hours tutor for CS61A)

MASTERING APPLIED DATA SCIENCE CERTIFICATE | AUGUST 31, 2018

- Attended the classes, completed assigned projects, presented projects to cohort and received valuable feedback in a boot camp program by the Dev Masters
- Learned skills needed of a professional data scientist

LANGUAGES

- Chinese (fluent), Spanish (intermediate)

Computer Science Skills

DATA SCIENCE AND MACHINE LEARNING| DECEMBER 2017 - PRESENT

- Experienced with data analysis and visualization, machine learning and natural language processing
- Libraries: NumPy, Pandas, Seaborn, Matplotlib, Ploty, Scipy, Sci-kit learn, NLTK

PROGRAMMING LANGUAGES AND OTHER SKILLS

- Python, Java, JavaScript, CSS and HTML
- Game Engines: Stencyl, Unity
- Database Programs: SQL, MongoDB
- WordPress

PROJECTS

- “Titanic: Machine Learning from a Disaster”: participated in a competition on Kaggle (a data science competition website) where I predicted whether a passenger on the Titanic survived using gradient boosting classifiers with a given dataset (scored in the 33 percentile)
- “Housing Prices: Advanced Regression Techniques”: participated in a competition on Kaggle where I predicted the prices of houses in Ames Iowa using random forest regressors with a given dataset (scored in the 75 percentile)
- The Mathematical Underworld: Created a 2D rougue-like game using Unity that helps players to practice calculus
- Bulimia Nervosa Quiz: wrote a quiz in Java to test how much of the DSM-5 criteria of Bulimia Nervosa, an eating disorder, a participant meets
- Device Failures: predicted using random forest classifiers which devices of trucks would fail using undersampling and oversampling techniques; had a recall score of 95%
- Uber Twitter Feeds: collected tweets from the TWEEPY API to conduct sentiment analysis on the name “Uber” using natural language processing and used the tweets collected to make word clouds
- Medical Company Recommender System: created a recommender system to recommend medical products to a customer depending on what product the customer buys
- Created the website peer1on1.org for the organization, Peer1on1, using Wordpress, the website has had over 3,942 views and 1,192 visitors

PLEASE GO TO MY WEBSITE TO VIEW MY PROJECTS

Work Experience

MATH TUTOR | CERRITOS COLLEGE | AUGUST 2018 TO JUNE 2019

- Tutored college students on math problems ranging from basic math to linear algebra or multivariable calculus
- Worked two shifts a week as a walk-in tutor and one shift a week as a tutor for the AIME program (a special program which allows students to receive walk-in tutoring almost instantly)
- Worked 13 hours a week three days a week and tutored about 60 students each shift as a walk-in tutor

Leadership

CO-FOUNDER OF PEER1ON1 - A NONPROFIT ORGANIZATION | OCTOBER 2016 TO JUNE 2019 | ROLE: VICE PRESIDENT

- Peer1on1- an organization which helps autistic individuals improve their social skills through interacting with high school volunteers
- My role was to communicate with the director of Peer1on1 on what her needs are and help the presidents to designate tasks to the rest of our cabinet members
- Peer1on1 had been able to help over 50 autistic individuals under the period of my leadership. It has also been nominated for the 2018 Annual Spotlight Award of the regional center of Orange County

Research Internships

DECISION MAKING PSYCHOLOGY | CAL STATE FULLERTON | MARCH 20, 2018 TO PRESENT

- Work under Dr. Birnbaum and graduate students
- Acknowledged in the research paper "TEMP2.R: True and Error model analysis program in R" in Vol. 13 No. 5 of the *Judgement and Decision Making* journal for testing out the TEMP2.R program (http://www.sjdm.org/journal/18/18507/jdm18507.pdf)
- Created two calculators using HTML, CSS, and Javascript, one to predict binary gambles according to the Schramm model(http://psych.fullerton.edu/mbirnbaum/calculators/Lucy02.htm) and the other for a markov model with response errors (http://psych.fullerton.edu/mbirnbaum/calculators/MARTER_sim.htm)
- Currently co-authoring a paper on risky decision making and the error models

MACHINE LEARNING | CAL STATE FULLERTON | MAY 21, 2018 TO JUNE 2019

- Worked under Dr. Panangadan as well as a computer science graduate student to collect data from the API, tweepy, of tweets relating to traffic and store those tweets in a MongoDB database (using Python)

MEDICAL MAGGOT RESEARCH INTERNSHIP | MONARCH LABS | JUNE 2017 TO DECEMBER 2017

- Helped my mentor with protocols, gathering maggots, and recording data for different experiments
- Learned how to effectively carry out experiments

Extracurriculars

CROSS COUNTRY AND TRACK AND FIELD| 2012 TO PRESENT

- Teams: Whitney High School Cross Country (2016, 2018), Whitney High School Track and Field (2017, 2019)
- Personal 5K record: 21 minutes 59 seconds
- Run an average of five miles every weekday during season
- Medals: Cross Country District Meet 2016 (6th place for JV), Rosemead Invitational 5K 2018 (47th place senior girls)