

Timothy Shen

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EDUCATION

University of California, Davis

Statistics, B.S. with emphasis in Machine Learning (Graduate Track)

Minors in Computer Science and Mathematics

Dean's List, Winter Quarter 2022

June 2024

Current GPA: 3.876

RESEARCH EXPERIENCE

Data Analytics Intern

June 2019 – December 2022

Open Medicine Foundation Myalgic Encephalomyelitis/Chronic Fatigue Syndrome Data Center

Dr. Wenzhong Xiao, Professor at Harvard Medical & Dr. Chia Jung Chang, Research Scientist at Stanford Genome Technology Center

- Modified an analytic software to better fit biostatisticians through the development of R packages and R Shiny that improved research and collaboration.
- Analyzed the relationship of the presence of fourteen metal types between Chronic Fatigue Syndrome (CFS) patients and control patients that resulted in further research into the presence of Calcium in CFS patients
- Made UI/UX improvements in their database to better communicate technical statistical functions to biologist that resulted in an increase in user interaction with the data center.
- Aided in processing over 100 files of medical research-related data (i.e. de-identification, scientific data formatting, and data sharing) to their data servers and unified their data entries.
- Designed a website to showcase all seven of their projects to improve communication among other researchers.

RELEVANT PROJECT EXPERIENCE

Disney Movie Research Project

Statistical Learning, Skills: R, Data Analysis (Stat Learning)

June 2022

- Processed over 3000 Disney Films and TV Shows through Kaggle and R.
- Analyzed the datasets via R and applying statistical learning (like regression analysis, PCA, diagnostic testing) to investigate what factors affect the success of Disney Films.

Housing Trend Research Project

Big Data and Web Technologies, Skills: SQL, Python, Data Analysis (Stat Learning)

December 2022

- Web-scraped via Python over 5000 houses in metro areas listed on Zillow
- Gathered and processed neighborhood statistic data through undocumented APIs
- Created data visualizations and analysis through Python's packages and SQL to investigate trends within the relationship between housing prices and its neighborhood.

WORK EXPERIENCE

Mathnasium Math Coach

Mathnasium, Davis

November 2021-Present

- Tutor K-12 math students in topics ranging from elementary math to calculus
- Improve 13 students' overall performance in their corresponding math classes
- Evaluate over 50 students' styles of learning and adapt my teaching techniques that improve their understanding of math topics.

Augmented Reality Instructor

Integem Inc., Fremont

June 2022-August 2022

- Designed and led activity programs for over 200 students in learning Machine Learning, and holographic Augment Reality.
- Taught 10-15 high school students per week in the use of Python, Adobe Animator, and Raspberry Pi.
- Collaborated with a team of four peers in creating an educational and safe environment for students.

Merchandise Sales Associate

California's Great America, Santa Clara

June 2021-August 2021

- Developed good relationships with customers that resulted in an increase in customer retention.
- Created a professional environment through maintaining cleanliness at cash registers, speaking to customers respectfully, and communicating with my supervisors.

COMMUNITY SERVICE EXPERIENCE

Children's Program Leader

Kaleo Missions, San Diego

June 2016 - June 2019

- Organized and taught an afterschool program for Syrian refugee children in need of afterschool care.
- Aided the lower income communities by connecting them with local outreach programs (thrift stores, homeless shelter, park cleaning).
- Led a team of 5 in planning events that raised the morale of our mission team of 30 people.

RELEVANT COURSEWORK

- Analysis of Variance
- Regression Analysis
- Algorithm Design & Analysis
- Probability Theory
- Statistical Data Science
- Optimization
- Data & Web Technologies for Data Analysis
- Big Data & High Performance Statistical Computing (*current*)
- Statistical Learning (*current*)
- Mathematical Statistics (*current*)

SKILLS

Statistical Analysis Software: SAS, JASP, R Studio, R Shiny

Programming Language: R, Python, SQL, MATLAB (intermediate)

Microsoft Office Suite: Microsoft Word, Excel, PowerPoint

Other Software: Git/GitHub, Docker, CKAN, Apache