

Jiaru (Jo) Cai

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EDUCATION

Bachelor of Arts – Economics Major, Computer Science Minor

University of California, Davis

GPA: 3.86 / Major GPA: 3.92

Dean's List

Graduation Date: June 2020

(Transferred from Sun Yat-sen University 中山大学)

PROFESSIONAL SKILLS

Database: SQL Server, MySQL, Oracle, NoSQL

Business Intelligence Tool: Tableau

Programming Languages: Python, Java, MATLAB

Languages: Chinese (Native), English (Fluent), Spanish (Basic)

Financial Analyst Certificate: CFA Level-1 Candidate

Statistical Languages: R, STATA, Excel

Writing and Documentation: HTML, LaTeX, Google Suite

PROJECT EXPERIENCE

Fake News Detection with Different Models

- Used a **neural network** and TFIDF, CV, and W2V algorithms to mine text. **Natural language processing** classifier was implemented. Published as a paper at Cornell University arxiv.org/abs/2003.04978.

Conway's Game of Life Simulation

- Personal Project. Simulated Conway dead and live cell rules through Python. Designed the programming into an **object-oriented** class. Set up a separate **test file** to ensure the programming performance 100% accuracy rate. As a result, the **simulation** is intelligent to start at any point either by the players' terminal arrow click or random generation by the computer and change to next stage.

Yelp: Which Boba Shop To Go

- Used Yelp **API** to extract data from Yelp platform. Analyzed the popularity and reviews of all boba shops in ten UC college towns on **SQL**. Designed a shinyapp.io website to publish the result. Successfully launched the product and gained 92% high rating.

WORK EXPERIENCE

Program Growth Analyst - Yu Ying Learning Center – Alameda, CA

Jan 2019 – May 2019 & Sep 2020 – Current

- Managed 300+ student accounts, analyzed business trends and monthly profits by advanced Excel, built efficient functions and methods to calculate parents' monthly billing amount; resulted in the accounting department to streamline their workload at least one week monthly
- Designed creative curriculum, introduced school STEM programs in open houses, class sign up rate reached 100% within one day; Assisted in launching online learning product.
- Worked as a technology developer and consultant of SOLIDWORDS for Kids, Lego, Scratch, and Code Combat. Developed communication skills to work with kids. Taught Python and JavaScript classes to elementary and middle school children.

Research Analyst - University of California, Davis –Davis, CA

Jan 2020 – Apr 2020

- Worked on Behavioral Economics research, including firm cooperation analysis, game strategy analysis, first-hand survey data cleaning and model regeneration. Simulated models of firm strategy adaptations. Designed the app for demonstration and published on shinyapp.io.
- Utilized Python for data visualization and summarized findings on Latex and Microsoft Word.

Energy Research Analyst - Lawrence Berkeley National Lab – Berkeley, CA

May 2018 – Aug 2019

- Scraped the web for data using R built-in packages, cleaned raw data on MATLAB, involved in text mining projects and developed a predictive model on STATA to project energy usage based on provincial economic indicators.
- Worked closely with PhD and postdoctoral researchers on electric vehicle projects in India, China & South America; highly efficient learner and a self-motivated person who can fit in in a fast-paced environment quickly and build a strong connection in my team.
- Selected for the position out of the professor's 19 undergraduate mentees; Results published as a paper: mdpi.com/1996-1073/12/13/2581

Financial Analyst - King International Financial Holdings Limited – Kowloon, Hong Kong

Oct 2017 - Dec 2017

- Analyzed historical gold price trends, visualized the patterns using Tableau dashboard, wrote reports and proposals on how to respond to future fluctuations. Learned excellent storytelling skills and communicated effectively with stakeholders.
- Sourced funds for investments, our team secured 0.5M US Dollars (3.5M HKD) of customer investments.